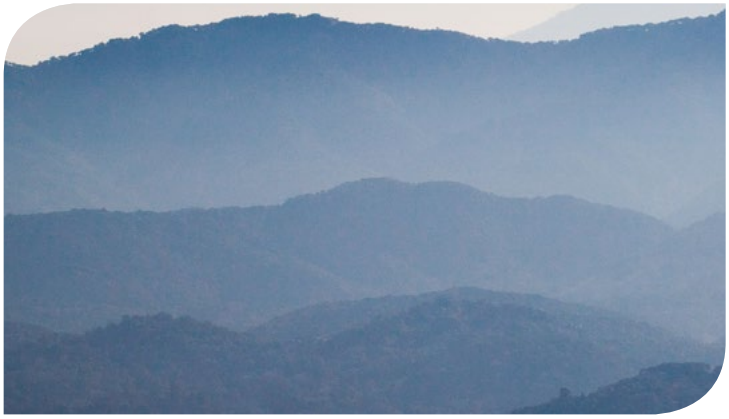


CALIFORNIA'S PROGRESS TOWARD CLEAN AIR

2014

A REPORT BY THE CALIFORNIA AIR POLLUTION CONTROL OFFICERS' ASSOCIATION

CALIFORNIA AIR DISTRICTS: AIR POLLUTION CONTROL OFFICERS AND AIR DISTRICT WEBSITES

Mike Boitano
Amador County APCD
www.co.amador.ca.us

Jim Donnelly
Glenn County APCD
www.countyofglenn.net

Richard Stedman
Monterey Bay Unified APCD
www.mbuapcd.org

Dave Van Mullem
Santa Barbara APCD
www.sbcapcd.org

Eldon Heaston
Antelope Valley AQMD
www.avaqmd.ca.gov

Ted Schade
Great Basin Unified APCD
www.gbuapcd.org

Rick Martin
North Coast Unified AQMD
www.ncuaqmd.org

Richard W. Simon
Shasta County AQMD
www.co.shasta.ca.us

Jack Broadbent
Bay Area AQMD
www.baaqmd.gov

Brad Poiriez
Imperial County APCD
www.co.imperial.ca.us/

Gretchen Bennitt
Northern Sierra AQMD
www.myairdistrict.com

Patrick Griffin
Siskiyou County APCD
www.co.siskiyou.ca.us

Jim Wagoner
Butte County AQMD
www.bcaqmd.org

Doug Gearhart
Lake County AQMD
www.lcaqmd.net

Barbara Lee
Northern Sonoma County APCD
www.sonoma-county.org/

Barry Wallerstein
South Coast AQMD
www.aqmd.gov

Brian Moss
Calaveras County APCD
www.co.calaveras.ca.us

Dan Newton
Lassen County APCD
www.lassenair.org

Tom Christofk
Placer County APCD
www.placer.ca.gov/apcd

Alan Abbs
Tehama County APCD
www.tehcoapcd.net/

Joseph Damiano
Coluso County APCD
www.colusanet.com/

Dr. Charles Mosher
Mariposa County APCD
www.mariposacounty.org

Larry Greene
Sacramento Metropolitan AQMD
www.airquality.org

Vicki Helmar
Tuolumne County APCD
www.Tuolumnecounty.ca.gov

Glen Stephens
Eastern Kern APCD
www.kernair.org

Robert Scaglione
Mendocino County AQMD
www.mendoair.org

Bob Kard
San Diego APCD
www.sdapcd.org

Mike Villegas
Ventura County APCD
www.vcapcd.org

Dave Johnston
El Dorado County AQMD
edcgov.us/

Joe Moreo
Modoc County APCD
www.co.modoc.ca.us

Seyed Sadredin
San Joaquin Valley APCD
www.valleyair.org

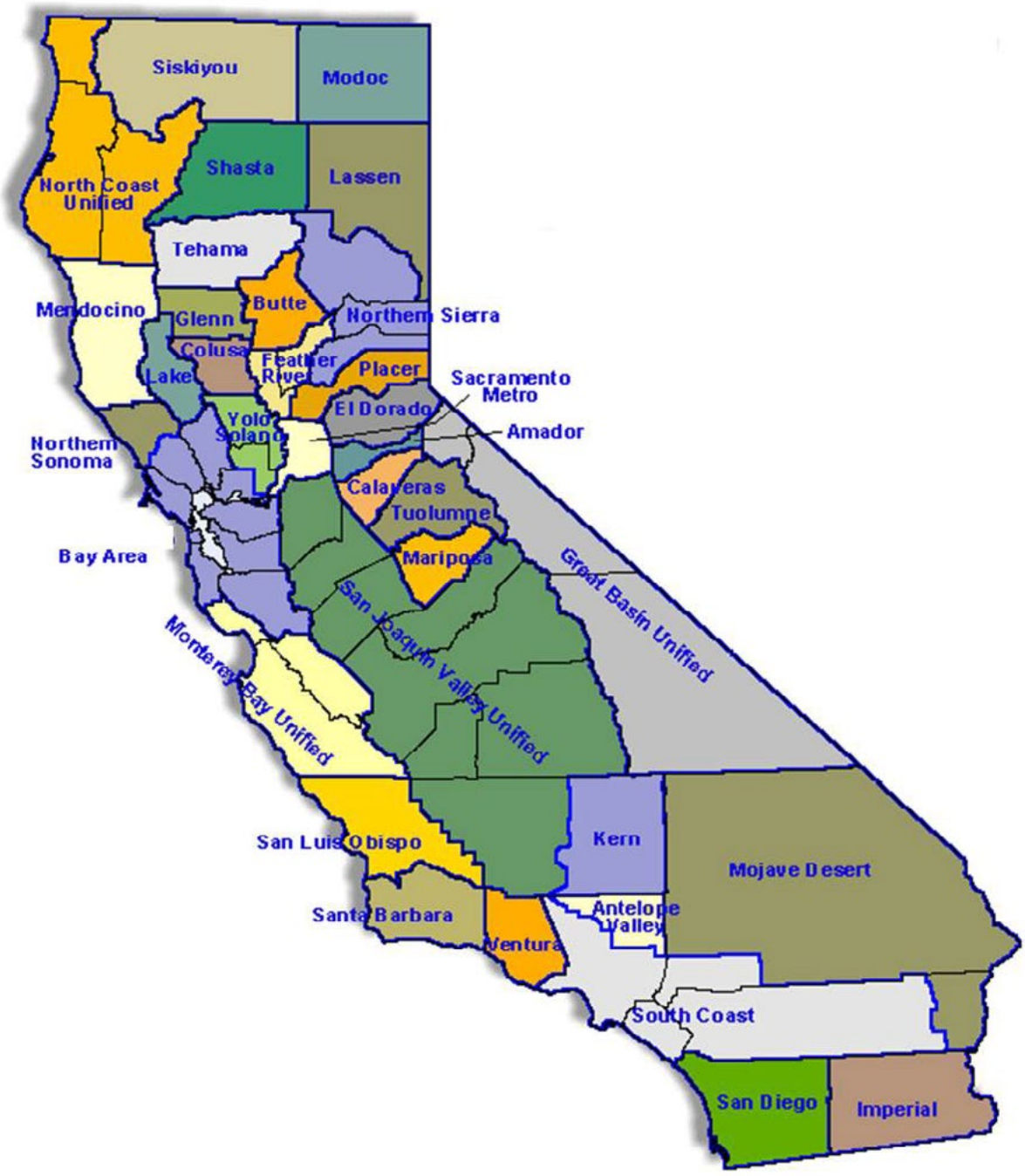
Mat Ehrhardt
Yolo-Solano AQMD
www.ysaqmd.org

Christopher D. Brown
Feather River AQMD
www.fraqmd.org

Eldon Heaston
Mojave Desert AQMD
www.mdaqmd.ca.gov

Larry Allen
San Luis Obispo County APCD
www.slocleanair.org

CALIFORNIA AIR DISTRICTS



CALIFORNIA AIR POLLUTION CONTROL OFFICERS' ASSOCIATION 2014 BOARD OF DIRECTORS

President

Jack Broadbent

Bay Area AQMD

www.baaqmd.gov

Vice President

Alan Abbs

Tehama County APCD

www.tehcoapcd.net

Secretary/CFO

Richard Stedman

Monterey Bay Unified APCD

www.mbuapcd.org

Past President

Brad Poiriez

Imperial County APCD

www.imperialcounty.net

Directors:

Dave Van Mullem
Santa Barbara County APCD

Barbara Lee
Northern Sonoma County APCD

Mat Ehrhardt
Yolo-Solano AQMD

Seyed Sadredin
San Joaquin Valley APCD

Larry Allen
San Luis Obispo APCD

Bob Kard
San Diego County APCD

Barry Wallerstein
South Coast AQMD

Larry Greene
Sacramento Metropolitan AQMD

Christopher D. Brown
Feather River AQMD

Jim Wagoner
Butte County AQMD

Report credits

Technical data: Kasia Turkiewicz, California Air Resources Board; Jackie Winkel, Bay Area AQMD; and staff of the CAPCOA Public Outreach, Planning Managers, and Air Monitoring committees.

Editors: Jackie Winkel, Sigalle Michael, and Andrea Gordon, Bay Area AQMD

TABLE OF CONTENTS

EXECUTIVE SUMMARY

The California Air Pollution Control Officers' Association (CAPCOA) represents the 35 local Air Districts throughout California. The purpose of this report is to provide objective information from these agencies on California's progress toward cleaner air as well as challenges that remain in meeting health-based air quality standards.

The air quality statistics in this report document an ongoing trend of air quality improvement across the state. These improvements occurred while population and vehicle miles driven in California continue to grow steadily. Over the last 20 years, California's population increased by 22 percent and average daily miles driven increased by 45 percent. Over the same time, statewide emissions of smog-forming pollutants decreased by over 50 percent (see figures 1 and 2 on the next page).

Extreme weather events have the potential to set back air quality improvements made over decades

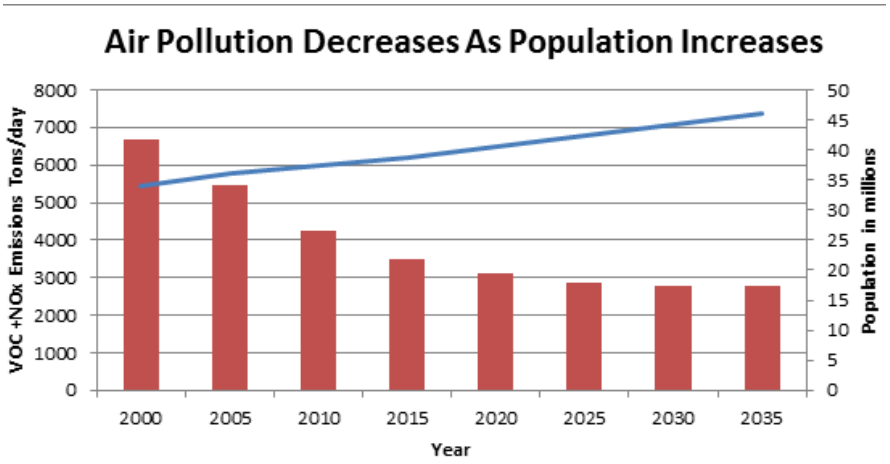
These substantial reductions in harmful air pollutants are the result of a comprehensive air pollution control strategy implemented by local Air Districts and the State of California. Thanks to California's strong vehicle emissions requirements and motor fuel standards, new cars and trucks emit significantly fewer air pollutants than they did 20 years ago. The Air Districts have complemented these state measures by providing millions of dollars in incentives and grants to expedite the turnover of the vehicle fleet in California, where older, highly polluting heavy duty vehicles are either retrofitted to make them emit less or are taken off the road altogether. In addition, local Air Districts have adopted and implemented numerous regulations and strategies that have effectively reduced industrial source emissions and have improved air quality throughout the state.

Although the progress toward clean air has been quite remarkable, the quest for clean air continues. The challenges ahead seem daunting in our motor vehicle-driven society. Examples of the motor vehicle problem exist in the two most severely polluted regions in the state and nation - the San Joaquin Valley (an area with low population density and high traffic volumes) and the South Coast air basin (high population density and high traffic volumes). While these areas have made tremendous strides in improving air quality they are far from meeting state and federal air quality standards. Beyond the challenges we already face in working to meet the current state and federal air quality standards, the likelihood of evermore stringent standards is on the near-horizon. Almost daily, new health studies provide evidence that air pollutants are harmful to our health at lower levels than previously thought. The World Health Organization recently reported that air pollution kills about seven million people worldwide every year, equating to about one in eight deaths being attributable to breathing bad air. Air pollution is now the single biggest global environmental health risk. The task

here is one of keeping up with evermore stringent air quality standards, for as the scientific evidence accrues the U.S. Environmental Protection Agency (U.S. EPA) is continually reevaluating and revising key air quality standards to be more stringent and protective of public health. Air Districts and the state are racing to protect public health by reducing emissions of air pollutants from industrial sources, motor vehicles, forest management, businesses, homes, and consumer products all while being mindful of the economy.

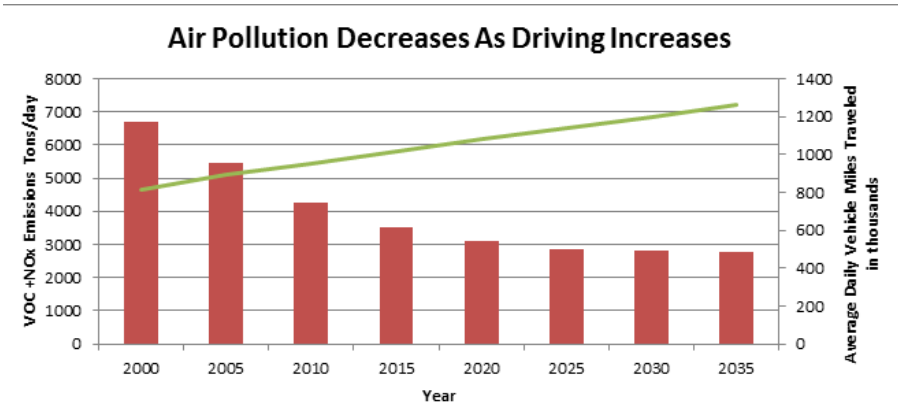
Furthermore, climate change and associated extreme weather events have the potential to set back air quality improvements made over decades as local and regional air quality are expected to suffer from a greater number of extreme heat days and increases in wildfires and their intensity. The state, along with support from the Air Districts, is committed to reducing greenhouse gas (GHG) emissions from all air pollution sources. The California Air Resources Board (ARB) recently released a draft of the update to the 2008 Scoping Plan which highlights the state's progress toward meeting California's GHG reduction targets for the years 2020 and 2050. In response, several Air Districts are incorporating GHG reduction strategies into their primary functions and are collaborating with state and local jurisdictions to reduce GHG emissions.

Figure 1



The California Almanac of Emissions and Air Quality, 2013 Edition. http://www.arb.ca.gov/aqd/almanac/almanac13/almanac2013all.pdf

Figure 2



The California Almanac of Emissions and Air Quality, 2013 Edition. http://www.arb.ca.gov/aqd/almanac/almanac13/almanac2013all.pdf

THE CLIMATE CHANGE CHALLENGE

While dramatic progress has been made in reducing air pollution and meeting air quality standards over the years, the effects of climate change threaten to reverse this progress and diminish decades of investments made to improve air quality. The higher number of extreme heat days and heat waves predicted to occur as a result of climate change will increase smog formation, increase the number and severity of wildfires, worsen heat island effects in urban areas, and increase adverse health effects due to the public's increased exposure to harmful air pollutants. The health risks associated with poor air quality, smoke from wildfires, and extreme heat days include: respiratory and cardiovascular diseases, heat stroke and exhaustion, asthma, and permanent damage to the lungs and heart.

According to a study conducted by Stanford University, climate change may have contributed to this past year's unusual winter conditions and resulting poor air quality days. The winter of 2013 was the driest year on record in California and with it came prolonged periods of air stagnation. This effect was due to extended periods of cold overnight temperatures coupled with unseasonably warm afternoons that created strong atmospheric inversions and poor mixing of air. The trapped air, with no wind to move it out, caused pollution to build up in the state, especially in northern California. Three northern California Air Districts experienced an uncharacteristically large numbers of days in which fine particulate matter (PM 2.5) concentrations exceeded the national standards (see Table 1 below). If the winter of 2013 is an indication of future meteorological conditions that can be expected as a result of climate change most regions in the state could experience decreases in air quality that will lead to increases in air pollution related illnesses and health risks.

Table 1: PM2.5 Exceedance Days

Air Basin	2012 PM2.5 Exceedance Days	2013 PM2.5 Exceedance Days
Bay Area	0	12
Sacramento	2	15
San Joaquin	16	38

In February 2014, the ARB released an update to the 2008 Scoping Plan as required by AB 32. The update indicates that California is on track to meet the state's 2020 GHG target of 1990 emission levels and is well positioned to maintain and continue reductions beyond 2020. However, the update states that more transformative strategies are needed to achieve the state's long-term 2050 GHG target of eighty percent below 1990 emission levels. The update highlights the following key focus areas where additional GHG reductions are possible: energy, transportation, agriculture, water, waste, natural lands, short-lived climate pollutants, and buildings.

Local Air Districts have a key role in reducing regional and local sources of GHG emissions. Many Air Districts are integrating climate protection into their air quality programs. Air Districts are also supporting local government climate actions by providing technical assistance, emissions data, quantification tools, financial incentives, and grant funding. Furthermore, existing Air District programs often fund projects that reduce driving, residential wood-burning, and their associated GHG emissions.

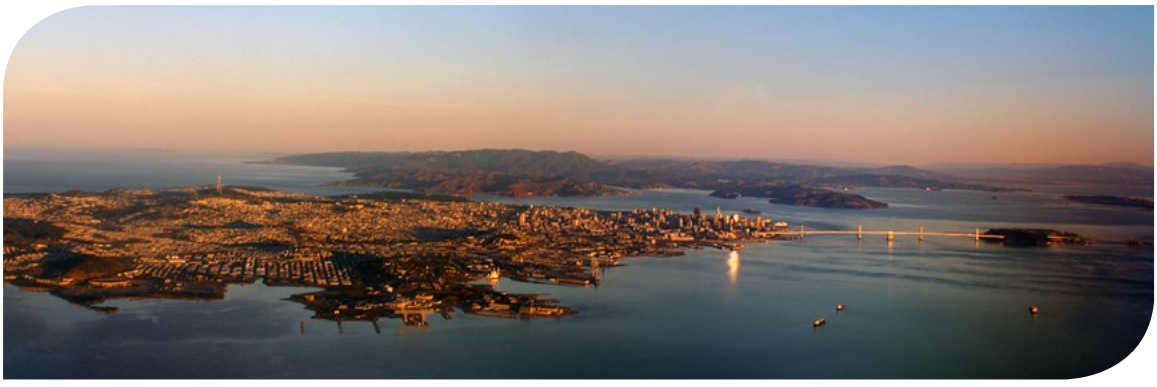
Beyond the continuing tradition of rulemaking to reduce air pollution, Air Districts are exploring innovative ways to reduce GHG emissions where previously unused opportunities may exist. Specific examples include, gaining energy efficiencies in stationary sources and existing buildings, targeting short-lived and higher global warming potential GHG pollutants like methane, supporting compact transit-oriented land uses, funding innovative projects such as residential solar water heaters, electric vehicle charging stations, and bike sharing programs, and encouraging local jurisdictions to prepare and implement climate action plans.

To help promote local actions, CAPCOA developed a GHG credit exchange (Exchange). The Exchange is intended to support and encourage in-state greenhouse gas reduction projects that may benefit the local economy and reduce the public's exposure to air pollution.

As climate change raises new air quality challenges, Air Districts will need to continue stepping up by pursuing new rules and regulations and developing programs to address GHG emissions and other air pollutants. Collaboration will be necessary at the federal, state, regional, and local levels as agencies and the public work to provide cleaner air for everyone to breathe. Beyond the public health benefits of clean air, it makes good financial sense to protect hard won air quality accomplishments. Clean air means reduced health care costs (think fewer asthma attacks and cardiovascular problems), healthy employees are more productive, and the substantial financial investments already made in improving air quality would be wasted if we do not make forward progress.

CALIFORNIA'S COMPREHENSIVE AIR QUALITY STRATEGY

California employs a four-pronged, comprehensive strategy aimed at reducing emissions from hundreds of sources of air pollution. The first prong relies on enforcement of existing regulations and adoption of new rules – some of the strictest in the nation – to reduce smog-forming and



toxic air contaminant emissions. The second uses voluntary incentive programs to accelerate the implementation of clean technologies. The statewide Carl Moyer Program and voter approved Proposition 1B - Goods Movement Emission Reduction Program have provided hundreds of millions of dollars to replace dirty diesel engines with modern, cleaner diesel and natural gas engines in heavy-duty trucks, commercial boats, agriculture, construction, and other types of equipment. The third prong uses public-private partnerships to research, develop, demonstrate and deploy clean air technologies such as plug-in electric and fuel cell vehicles. The fourth prong uses public outreach and education to inform California residents about air quality-related topics and how they can help improve air quality.

The state's most severely polluted regions, which include the San Joaquin Valley and the South Coast Air Basin, will need extensive deployment of zero and near zero emissions technologies to meet current and future clean air standards. The *Vision for Clean Air: A Framework for Air Quality and Climate Planning* document, written jointly by ARB, South Coast and San Joaquin Air Districts, discusses in-depth the need for an integrated air quality, climate and energy strategies using advanced technologies.[1]

AIR DISTRICTS' SUCCESSES IN 2013

In addition to the general overall improvements in air quality, several Air Districts met air quality standards for PM2.5 in 2013. The U.S. EPA approved the clean data findings for the 24-hour PM2.5 standard for the San Francisco Bay Area, the Sacramento Metropolitan Area, and the Butte County Air District. These Air Districts met the 24-hour PM2.5 standard for 2013 but still have a nonattainment designation.

In regard to ozone, the U.S. EPA determined that San Diego County is now in attainment for the 1997 80 ppb (parts per billion) 8-hour ozone standard but not the more stringent 2008 8-hour standard, for which the county is "marginal nonattainment."

ARB estimates that 63% of California residents reside in areas that meet the federal standard for ozone, compared to only 24% in 1990

Currently, the ARB estimates that 63% of California residents reside in areas that meet the federal standard for ozone, compared to only 24% in 1990.[2]

In 2013, for the first time in recorded history, the San Joaquin Valley did not record any violations of the hourly ozone standard established under the federal Clean Air Act; in contrast, the San Joaquin Valley exceeded the standard during 281 individual hours in 1996.

1 http://www.arb.ca.gov/planning/vision/vision.htm

2 http://www.arb.ca.gov/aqd/almanac/almanac13/almanac13.htm

TOUGHER AIR QUALITY STANDARDS

The U.S. EPA has significantly strengthened air quality standards in recent years due to scientific and epidemiological studies documenting air pollution's substantial deleterious effects on public health. In 2008, the U.S. EPA lowered the 8-hour federal ozone standard from 80 ppb to 75 ppb and as of 2013, there were still 15 ozone non-attainment areas in California.

In January 2014, the U.S. EPA released a draft policy assessment stating the current federal ozone standard of 75 ppb may not adequately protect human health, and could be strengthened to a standard between 70 ppb and 60 ppb to protect the health of populations at risk for exposure.These stricter standards will further challenge the state and local Air Districts in finding cost effective strategies to further reduce emissions.

Stricter standards will further challenge the state and local air districts in finding cost effective strategies to reduce emissions

In December 2012, the U.S. EPA made the annual PM2.5 standard more stringent, reducing the standard from 15 to 12 micrograms per cubic meter. The only air basins in the state that do not meet this new annual standard are the South Coast AQMD, San Joaquin Valley APCD, and Imperial County APCD.[3]

Although much progress has been made in cleaning the air we breathe, the Air Districts across California that are now in attainment with the various federal air quality standards must continue to strive to meet California's health-based ozone and PM2.5 air quality standards. California's air quality standards are generally more stringent and evermore health protective than the federal standards adopted by the U.S. EPA.

PUBLIC HEALTH BENEFITS OF CLEAN AIR

Recent state and federal assessments have provided an empirical yardstick for measuring the costs of unhealthy air and the benefits of meeting the federal air quality standards. The South Coast and San Joaquin Valley areas have estimated the annual health costs of air pollution to total $22 billion ($1,250 per person) and $6 billion ($1,600 per person), respectively.[4] In the Bay Area, implementation of the proposed control measures in the 2010 Clean Air Plan would provide benefits with an estimated monetary value in the range of $270 million to $1.5 billion per year in terms of reduced medical costs, increased life expectancy, and reduced impacts of climate change.[5]

Multiple studies have demonstrated that the economic benefits of achieving health-based ambient air quality standards are far greater than are the costs of attaining those standards, including a

3 The California Almanac of Emissions and Air Quality, 2013 Edition. http://www.arb.ca.gov/aqd/almanac/almanac13/almanac2013all.pdf

4 Hall, J., Brajer and F. Lurmann. (2008). The Benefits of Meeting Federal Clean Air Standards in the South Coast and San Joaquin Valley Air Basins. California State University-Fullerton, Institute for Economic and Environmental Studies. See: http://business.fullerton.edu/centers/ceaf/

5 Bay Area 2010 Clean Air Plan (2010). Bay Area Air Quality Management District. See: http://www.baaqmd.gov/Divisions/Planning-and-Research/Plans/Clean-Air-Plans.aspx

recent U.S. EPA study finding that regulations under the Clean Air Act will yield around $2 trillion in annual benefits nationwide by 2020.[6]

A 2013 study found that air pollution in California caused over $193 million in hospital medical care costs from 2005-2007 as residents went to emergency rooms for ailments triggered by elevated toxic air pollutant levels. Approximately 30,000 emergency room visits and hospital admissions recorded over the three year period were correlated with high levels of fine particulate concentrations in the San Joaquin and South Coast air basins.[7]

PM is the criteria pollutant that poses the greatest risk to public health

As for the health risk to California residents from exposure to PM2.5, an extensive body of research provides compelling evidence that fine PM is the criteria air pollutant that poses the greatest risk to public health. It has long been established that exposure to particulate matter has negative effects on the respiratory system, such as triggering asthma attacks, aggravating bronchitis, and diminishing lung function. In the past several decades, a multitude of studies have found that fine PM can also harm the cardiovascular system; these studies have shown a strong correlation between exposure to fine PM and severe health effects such as heart diseases and premature mortality. In recent studies, researchers have also found that exposure to fine PM may be correlated with a wide range of other health effects, such as diabetes, autism, and cognitive (brain function) impairment.[8]

6 http://www.eenews.net/assets/2011/03/01/document_gw_03.pdf

7 RAND Corporation. "Dirty air in California causes millions worth of medical care each year, study finds." Science Daily. Science Daily, 5 March 2010. <www.sciencedaily.com/releases/2010/03/100302083456.htm>.

8 Understanding Particulate Matter: Protecting Public Health in the San Francisco Bay Area (2012). Bay Area Air Quality Management District. See: www.baaqmd.gov/pmplanning

AIR DISTRICT UPDATES

The following summaries are provided by California's local Air Districts and highlight the successes and future challenges facing the Air Districts in meeting air quality standards.

Antelope Valley Air Quality Management District

Energy and development took center stage in the Antelope Valley Air Quality Management District in 2013. Following a marathon six-hour public hearing in December with almost 500 Antelope Valley residents in attendance, the AVAQMD Governing Board approved the transfer of an estimated $15 million in emission reduction credits from neighboring Air Districts for the construction of a 570-megawatt natural gas power plant in Palmdale, California. Major air quality permits were also issued by the Air District to BYD Bus and Battery Manufacturer, Kinkisharyo International and Incotec Corporation.

Rule development activity included amendments to the AVAQMD'S Rule 431.1 - Sulfur Content of Gaseous Fuels and CEMS rules. A Major Facility Late Fee rule was adopted in 2013, while other rulemaking activity included the rescission of Rule 1174 - Control of VOC Emissions from the Ignition of Barbeque Charcoal.

Abnormally low rainfall amounts – even for the desert – exacerbated dust storms originating from fallow farmlands in the Antelope Valley. The AVAQMD continued to implement dust mitigation strategies through its work with the Antelope Valley Dustbuster Task Force.

In June, the AVAQMD partnered with South Coast AQMD air monitoring staff to provide short- term PM2.5 monitoring for the Painted Turtle Campground, a facility for children with life-threatening illnesses. The camp was heavily impacted by smoke from the Powerhouse Fire in the Los Angeles National Forest. The AVAQMD continued to provide STEM-based environmental education resources to educators within its jurisdiction through its collaboration with the Mojave Environmental Education Consortium (MEEC).

The AVAQMD'S Alternative Fuel Vehicle and Home Refueling incentive program continued to flourish, with 75 vehicles funded in 2013.

Bay Area Air Quality Management District

In 2013, the Air District called a record-breaking 33 Winter Spare the Air alerts as a result of a high pressure system which caused unusually dry and still weather conditions and elevated levels of particulate pollution. The Bay Area exceeded the federal 24-hour standard for PM2.5 on 12 days, the highest number of exceedances since 2007. Had it not been for the no-burn provision put in place during Winter Spare the Air alert days, the number of exceedances would have been higher.

The Air District continued a comprehensive grant program to reduce mobile source emissions from heavy duty trucks, and funded an array of projects to improve air quality in the region. Shore-power projects were completed at nine berths at the Port of Oakland to reduce ship idling emissions, the vehicle buyback program was re-started and the Plug-In Electric Vehicle Readiness Plan was completed. The Air District continued its emphasis on truck replacement projects through the Goods Movement Bond Program and the Carl Moyer Program. The Air District collaborated with CAPCOA, ARB, and other stakeholders on legislation reauthorizing the Carl Moyer Program and AB 923 funding sources through January 1, 2024 (previously scheduled to sunset in 2015). The Air District also successfully launched the nation's first regional, five-city bike share program in 2013.

In November 2013, the Air District adopted a regional climate change resolution, setting a goal for the Bay Area of reducing GHG emissions to 80 percent below 1990 levels by 2050, and developing specific performance objectives to track progress towards the goal. The Air District began developing a regional climate action strategy to guide and document the work toward achieving the 2050 goal. The Air District will utilize the update to its Clean Air Plan to initiate the climate strategy.

The Air District continued to work jointly with the Metropolitan Transportation Commission on a proposed rule (Regulation 14: Mobile Source Emissions Reduction Measures, Rule 1: Bay Area Commuter Benefits Program) pursuant to Senate Bill 1339, which will serve as the foundation of a new Bay Area Commuter Benefits Program. This program will apply to employers with more than 50 full-time employees, and will encourage commuters to use sustainable transportation commute modes.

The Air District advised MTC on the implementation of mitigation strategies to address exposure of toxic air contaminants (TACs) and PM2.5 in the Bay Area Sustainable Communities' Strategy. The Air District continued working with local government agencies to incorporate policies and measures to address exposure of TACs and PM2.5 into local planning processes.

In 2013, the Air District adopted amendments to Regulation 9, Rule 10, which limits the emissions of nitrogen oxides and carbon monoxide from boilers, steam generators, and process heaters in petroleum refineries. Air District staff continued work on: developing a new rule regarding control of fugitive dust; investigating potential limits for coke calcining operations associated with kiln processing of petroleum coke produced at Bay Area refineries; developing a rule to track air emissions from petroleum refineries over time; and establishing monitoring systems to provide detailed air quality data along refinery boundaries and in nearby communities. The Air District also adopted two new rules, Regulation 6, Rule 4: Metal Recycling and Shredding Operations which addressed fugitive emissions of particulate matter from large metal recycling facilities, and Regulation 12, Rule 13: Foundry and Forging Operations, which addresses fugitive emissions of both PM and odorous substances from foundries and forges.

Several episodic incidences, including wildfires in Oregon (July 2013), Mt. Diablo (September 2013), and Solano County (October 2013); a refinery flare at the Tesoro Refinery (November 2013); and two fires at a scrap metal facility (November and December 2013) adversely impacted air quality in the Bay Area. The Air District continued efforts to implement a work plan for actions related to accidental releases from industrial facilities and enhancements to emergency response practices.

A Public Participation Plan, designed to guide and shape the Air District's communication and engagement with the public and other stakeholders, was approved in late 2013. The Plan includes actions the Air District will undertake to improve public engagement and outreach efforts and outlines strategies for effectively interacting with the many diverse neighborhoods and communities in the Bay Area. The Plan serves as a guide on how to engage, comment, and participate in Air District processes. The Plan was developed as a joint effort involving Air District staff, community groups, business interests, and government organizations.

Butte County Air Quality Management District

The Air District has a wintertime challenge with PM2.5 due to woodstove/fireplace smoke and has a voluntary county-wide curtailment program, Check Before You Light. The City of Chico implemented a mandatory program beginning with the 2011-12 season. An increase in media attention and advisory notification requests indicate an increased public awareness of the problem. A 3-year woodstove

change out program began implementation in January 2014. A total of 170 change outs were approved for the first year.

The Air District participates in the Carl Moyer Program and in addition to on-road, off-road and stationary source projects, began funding off-road equipment replacement projects. Most of these projects occur within the agricultural community. The District also began accepting applications for the Truck Improvement/Modernization Benefitting Emission Reductions (TIMBER) Log Truck replacements.

The U.S. EPA took direct final action in June 2013 to approve revisions to the Air District's portion of the California State Implementation Plan (SIP). These revisions concern volatile organic compounds (VOC), oxides of nitrogen (NOX), and particulate matter (PM) emissions from residential wood burning devices. The U.S. EPA approved local rules that regulate these emission sources under the Clean Air Act.

Colusa County Air Pollution Control District

The Air District is an agricultural based county located in the Sacramento Valley approximately 60 miles north of Sacramento. The Air District has worked with the agricultural industry and industrial businesses to improve air quality. The U.S. EPA has recently re-designated the Air District as attainment for the PM2.5 federal standard.

The Air District continues to aid in the replacement of older stationary diesel agricultural engines and off-road diesel equipment with funding from the Carl Moyer Program which includes the Off-road Equipment Replacement Program and the Off-road Voucher Incentive Program. District information is available at: http://colusanet.com/apcd/.

El Dorado County Air Quality Management District

El Dorado County is located east of Sacramento and is divided amongst two air basins - the Mountain Counties in the west and Lake Tahoe in the east. The county rises in elevation from 600 feet in the west to over 10,000 feet in the east, and approximately 73 percent of the land area is national forest. The Mountain Counties portion is non-attainment for the state and federal standards for ozone. Both

the Mountain Counties and Lake Tahoe are in non-attainment for state PM10 and the western portion of the county is close to attaining the PM2.5 federal standard.

Smoke from illegal open burning is a challenging problem. Prioritizing public education as a means to achieve compliance the Air District maintains an Online Burn Violators Training Course for first time violators of the open burning rule. Violators who successfully complete the course can reduce their violation penalty by up to $150. Usually, this completely covers most first-time burn violation penalties. Since the Burn Course was implemented in early 2013, there have been at least 50 successful Burn Course participants.

The course can be viewed at: http://edcapps.edcgov.us/AirQualityManagement/BurnRuleTraining/traininghome.html.

The Air District has increased enforcement of the open burning rule by patrolling rural areas on no burn days. Additionally, the district conducts dust-patrol primarily of construction sites but also at large.

Smoke from fireplaces and old wood stoves continues to be challenging. The Air District's Wood Stove Replacement Incentive Program reimburses applicants $500 for replacement with a new U.S. EPA Phase II certified stove or $600 for complete removal or the use of a new or existing natural gas, propane, or electric heating appliance. The program even pays for the associated building permit for the new installation. The initial funding of $60,000 replaced or removed 96 woodstoves within 5 months! The Air District continues to seek funding for this program and has collaborated with the Tahoe Regional Planning Agency (TRPA) to increase this incentive amount by $300 for replacements in the Lake Tahoe Basin using funding from TRPA.

With 73% of the land being National Forest and many thousands of acres of private forest lands, annual hazard reduction prescribed burning significantly contributes to PM levels. EDCAQMD staff is closely monitoring Placer APCD's outstanding work and progress toward siting a small biomass plant and plans to someday duplicate their success.

The Air District administers two grant programs aimed at reducing emissions. The DMV AB 2766 grant program provides funding for mobile source emission-reducing projects within the county. Almost $500,000 will soon be awarded for emission reduction projects in 2014-2015. Those projects include three shuttle programs, funding for the 50 Corridor Bicycle Friendly America Initiative, electric vehicle infrastructure, and city truck replacement. The Air District also administers the AB 923 grant program to retrofit or replace older polluting school buses. The program awarded $320,000 to retrofit 18 buses with diesel particulate filters (DPF) resulting in as much as 85%

reduction in particulate matter emissions from those buses. The Air District hopes to award approximately $1.2M to replace up to 10 school buses with new buses in 2014.

The Sacramento Metropolitan AQMD administers the Carl Moyer Program for the Air District. The Air District submitted two applications for grant funding for electric vehicle (EV) purchase incentives and EV charging infrastructure. The Air District recently learned it's EV purchase incentive grant application of $250,000 was successful. The Air District will provide a $1,000 incentive for the purchase of EV or Plug-in Hybrid Electric Vehicles (PHEV), in addition to the state and federal incentives.

More information on the districts activities is available at http://www.edcgov.us/AirQualityManagement/

Feather River Air Quality Management District

The Feather River Air Quality Management District (FRAQMD) includes the counties of Yuba and Sutter in the Sacramento Valley Air Basin. During 2000-2002, the Air District had two ozone monitors, one in Pleasant Grove and one in Yuba City. In 2011-2013, the Air District had only one monitor in Yuba City that records both ozone and PM2.5. The monitor in Yuba city is indicative of air quality on both sides of the Feather River so there is no additional monitor on the Yuba County side.

The pending challenges for the FRAQMD include reducing emissions of PM2.5, PM10, and ozone precursors in order to achieve and/or maintain the California and National Ambient Air Quality Standards (AAQS). The southern portion of the Air District is part of the Sacramento Federal Nonattainment Area for ozone, and all of Sutter County and most of Yuba County were designated as nonattainment for the 2006 24-hour PM2.5 National AAQS. The Air District has also been designated as nonattainment for ozone and PM10 California AAQS.

The Air District has recently made significant achievements in improving air quality. These achievements include the Yuba City-Marysville PM2.5 Nonattainment area attaining the 2006 PM2.5 National AAQS. The Air District is submitted a Redesignation Request and Maintenance Plan to the U.S. EPA in April, 2013.

The Air District has also made improvements in reducing ozone. In 2010, the Air Resources Board changed the designation for Sutter and Yuba Counties from nonattainment to nonattainment-transitional, demonstrating that the Air District was moving closer to attaining the state AAQS. Also, the Sutter Buttes nonattainment area has been designated as attainment for the 2008 ozone National AAQS. The special purpose ozone monitor located on top of the Sutter Buttes records transport emissions from the metropolitan areas northward into the Sacramento Valley. The Sutter Buttes has been designated as a separate nonattainment area since the location, at 2,000 feet above the valley floor, is not populated and not indicative of air quality conditions

where the population of the county resides. The Air District continues to work internally and with the Sacramento regional Air Districts to reduce ozone through planning, outreach, and regulatory controls.

Glenn County Air Pollution Control District

The Glenn County Air Pollution Control District shares its jurisdiction with the agriculturally based county and is located approximately 80 miles north of Sacramento. The Air District is bounded by the Mendocino National Forest in the west, the Sacramento River in the east, and is bisected by Interstate 5. Challenges the Air District faces include the emissions related to freeway vehicles, wildfires, agricultural burning of crop residue, and soil preparation activities. The Air District also faces the challenge of protecting public health and implementing all programs with a staff consisting of one manager, one inspector, and one ¾ time front staff member. The Air District is proud of the recent change in Attainment Status by the Air Resources Board. The 2013 Area Designations for State Ambient Air Quality Standards reports that the Glenn County Air Pollution Control District has been re-classified to Attainment for Ozone and to Attainment for PM2.5! The Air District will continue to strive to protect the comfort, repose, health and safety of the citizens and businesses of Glenn County.

Outreach information, including Carl Moyer Program applications and contact information, is available in the Air District's Willows office and on the Air District's website, http://www.countyofglenn.net/govt/departments/air_pollution/

Imperial County Air Pollution Control District

The Air District continued its public outreach efforts by upgrading its monitoring network. The new system will be used to not only compile more robust data but to also provide the general public with actual visuals of events as they occur. This system will support data generation as well as real time video feed. The system is expected to be done by fall of 2014. The strategic design follows a north to south, east to west placement to cover the entire county. Overall in 2013, the Air District

saw improvements in PM2.5 levels. However, a slight increase in PM10 violations was noticed and therefore, the Air District continues to implement its Best Available Control Measures (BACM).

Because pollution knows no borders, the Air District is intimately involved in obtaining a more robust understanding of international transport. The primary avenue used by the Air District in this endeavor is through the 2020 Border Program. While the Border 2020 program is a larger program, locally, the Imperial County - Mexicali Air Quality Task Force, originally created under the Border 2012 program through a bi-national group of stakeholders, is the principal driving "force" used by the Air District to accomplish a thorough understanding of international impacts within the Imperial County-Mexicali region. The main goal of the task force is to collaboratively identify and prioritize air quality issues that affect the health and well-being of border communities. Currently, the Air District in conjunction with the Air Quality Task Force is moving forward with two main projects: 1) Educational Media Campaign and 2) "Idling Emissions Study at the Calexico East and West Ports of Entry." The primary intent of both these programs is to help educate governments and the general public both in Mexico as well as in the United States.

The goal of the "educational campaign" is provide a more personal understanding, to the individual, as it concerns cross-border impacts. As in the past, the Educational Media campaign is disseminated throughout Mexicali, Mexico. The educational campaigns, running for over two years now, advertise the dangers and long-term effects associated with unhealthy air quality and explain how cultural events impact concentrations of pollutants. These efforts are expected to continue for another two years in full force. As public support increases, demanding that both federal and local governments take a harder look at ways to curb pollution, the Border 2020 program participants expect to expand outreach and support.

The "Idling Emissions Study at the Calexico East and West Ports of Entry" is directed toward reducing emissions of particulate matter and nitrous oxides from idling vehicles at ports of entry as it is one of the most important air quality challenges facing the Imperial County and Mexicali region. Even with standards taking effect over the next decade for idling vehicles, millions of vehicles will continue to emit large amounts of nitrogen oxides, particulate matter and air toxics, which contribute to serious public health problems. These problems are known to cause premature deaths, trigger asthma attacks, result in a loss of work days, and numerous other negative health impacts every year.

Lake County Air Quality Management District

The Air District includes all of Lake County. This includes all of the Known Geothermal Resource Area (KGRA) in Lake County – the largest direct steam geothermal power generation installation in the world. Air monitoring stations are located in Lakeport, Glenbrook, Pine Summit, and Anderson Springs. The Air District is in attainment all of the federal and state standards since 1990 and is the only Air District and Air Basin in California to do so. The Air District's primary concerns are maintaining its clean air through a robust open burn permitting and enforcement program, maintaining its ozone and PM monitoring network, and conducting its stationary source permitting and enforcement program. Lake County was ranked the Cleanest County in the Nation for PM 2.5 by the American Lung Association in its 2013 State of the Air Report. The Air District has met and maintained this standard

without the benefit of vehicle license fees or other grants that are commonly available for non-attainment Air Districts. Lake County is operating an additional four monitoring stations working with a local Public Health Officer and others to determine potential health threats resulting from natural vents in the City of Clearlake as well as localize odor impacts from geothermal operations.

Mojave Desert Air Quality Management District

In 2013, ozone concentrations and exceedances of the ozone standard measured within the Mojave Desert Air Quality Management District's (MDAQMD) 20,000 square jurisdiction continued on a downward trend, as evidenced by data collected at the Air District's six air monitoring sites. Particulate measurements also exhibited minor improvements District-wide.

In response to the U.S. EPA's audit of its Title V Federal Operating Permit Program, the MDAQMD made significant enhancements its existing program. A delegable PSD program was also developed.

The MDAQMD's Rule 1406 – Generation of ERCs for Paving Unpaved Public Roads – was successfully re-adopted, along with its accompanying Environmental Impact Report. Other rulemaking activity included an amendment to District Rule 1160 – Internal Combustion Engines – to address the presumptive Federal RACT down to 50 hp district-wide.

The MDAQMD's trademark community outreach and education efforts continued to flourish, with many of the Air District's education efforts implemented through the Mojave Environmental Education Consortium (MEEC). The High Desert's first-ever Solar Cook-Off competition - sponsored by the MDAQMD, in association with MEEC - attracted 12 student teams which competed for prizes in the "Best Oven Design" and "Best Recipe" categories. EnviroFlash – the MDAQMD's automated air quality forecast service – continued to expand its reach, with almost 300 subscribers signed up by the end of the year. The Air District's public incentive programs – including its vehicle buyback and lawn mower replacement programs – also thrived in 2013. The lawn mower exchange program was expanded to include a partnership with the Mojave Water Agency, whereby residents who removed their lawns through the agency's "Cash for Grass" program could exchange their idle mowers for gift cards to local home improvement stores, courtesy of the MDAQMD.

Due to public demand, the MDAQMD increased the number of EV charging stations located at its Victorville offices from one to two. In the fall, electric motorcycle aficionado Terry Hershner used the two stations to recharge his vehicle during a record-breaking cross-country ride from Florida to San Diego, California.

Monterey Bay Unified Air Pollution Control District

The Air District has local jurisdiction for air quality in the North Central Coast Air Basin. The air basin was designated attainment for the 8-hour federal ozone standard in 2012; however, work still

remains to achieve attainment of the 8-hour state ozone standard. The air basin is designated as attainment for the federal and state standards for PM2.5.

The Air District is fortunate to experience good regional air quality, yet localized high PM2.5 concentrations continue to be a challenge. Special monitors in the San Lorenzo Valley (SLV) area near Santa Cruz continue to record exceedances of the 24-hour federal PM2.5 standard due to the topography of the area, the large number of homes heated with woodstoves, and intermittent outdoor burning of yard waste. The mountainous terrain of the SLV traps winter smoke, causing PM2.5 concentrations as well as smoke complaints to increase during the winter months. This past year, the Air District continued funding for the Woodstove Change Out Program and successfully changed out over 160 old woodstoves district-wide. The free yard waste recycling events for SLV residents continued in 2013 and resulted in the recycling of approximately 780 tons of yard waste material. Implementing these programs will help to reduce the localized increases in PM2.5 concentrations experienced in the SLV and district-wide.

North Coast Unified Air Quality Management District

Located along the rugged northern coast of California, the Air District encompasses approximately 7,753 square miles within Humboldt, Del Norte and Trinity counties. In general, the Air District has some of the healthiest air in the nation. The terrain spans coastal, agricultural, forested, and mountainous regions, which creates hundreds of microclimates within the Air District. To better examine those microclimates the Air District has increased the number of air monitoring stations from three in 2006 to five in 2013.

There have been zero days in exceedance of the ozone standards for all three counties. Earlier this year, the U.S. EPA granted approval to move from paper filter monitoring in favor of continuous monitoring.

The Air District continues to provide public outreach in the form of grant administration to the community through the Carl Moyer and TIMBER grant programs. The Air District has also continued its woodstove change-out program; provided outreach during the wildfire events in the summer of 2013; and continues to host asbestos workshops and ARB trainings that are well attended by staff and members of the regulated community.

Northern Sierra Air Quality Management District

The Northern Sierra Air Quality Management District is comprised of the rural counties of Nevada, Sierra and Plumas. The western portion of Nevada County (west of the Sierra crest) occasionally experiences high ozone concentrations on hot summer days when the wind is out of the southwest. Most of this ozone is transported by wind from the Sacramento region and the Bay Area. Ozone data from the past few years demonstrate a dramatic improvement in western Nevada County's air

quality. The town of Truckee, in eastern Nevada County, sometimes experiences elevated wintertime particulate matter concentrations from wood combustion and road sand but the situation has improved greatly over the past 14 years due to the town's successful Particulate Matter Air Quality Management Plan adopted in 1999.

Plumas and Sierra counties are separated from Nevada County and the Sacramento area by vast canyons that disrupt the transport of ozone, and PM2.5 is the main pollutant of concern in Plumas and Sierra County. It is mostly associated with localized wood combustion, in spite of open burning restrictions and wood stove change-out programs that have been administered by the Air District. On a typical elevated PM2.5 day in Plumas County, temperatures are cold, residents are using their wood stoves and an atmospheric inversion is in place. The highest concentrations generally occur late at night (when wood stoves are damped down) and in the morning (when stoves are started up). However, wildfire events in 2012 resulted in PM2.5 concentrations in the "Moderate" AQI range on many days that otherwise would have been "Good" AQI days.

Also, like much of the state, Plumas County experienced unusually high PM2.5 concentrations during November and December of 2013 due to persistent poor dispersion characteristics in the lower atmosphere combined with drought conditions.

Northern Sonoma County Air Pollution Control District

The Air District includes all of the coast of Sonoma and areas north of the town of Windsor, as well as the lower Russian River valley. This includes all of the Known Geothermal Resource Area (KGRA) in Sonoma County – the largest direct steam geothermal power generation installation in the world. Air monitoring stations are located in Cloverdale, Healdsburg and Guerneville, as well as stations operated cooperatively with Lake County in the KGRA. The southern portion of the county (including the monitoring stations in the cities of Santa Rosa and Sonoma) lies within the Bay Area Air Quality Management District.

The Air District currently attains all of the federal and state standards. The Air District's primary concerns are maintaining its clean air through a robust open burn permitting and enforcement program, providing grant incentives for clean air projects and conducting its stationary source permitting and enforcement program. The Air District works in partnership with other agencies, cities and the County of Sonoma to achieve reductions in greenhouse gases called for in the Climate Action Plan adopted by the county and all of its nine cities.

In 2013, the Air District collaborated with six other Air Districts through CAPCOA to create the CAPCOA Greenhouse Gas Reduction Exchange (GHG Rx). The CAPCOA GHG Rx provides a trusted

source of high-quality GHG credits created from mitigation projects implemented in California, supporting local reductions in GHG emissions and securing important co-benefits for the local air quality and economy. The Air District also awarded grants for heavy-duty diesel engine clean-up projects, primarily for tractors and other agricultural engines, and provided vouchers to incentivize replacement of older, high-emitting woodstoves with new, cleaner burning appliances.

Placer County Air Pollution Control District

The Placer County Air Pollution Control District continues to move forward with numerous projects and programs that are providing both quantitative and qualitative improvements in air quality. Examples are the Air District's work in forest-sourced biomass utilization for renewable energy, public health information during wildfire events, air quality planning for attainment goals, and the Air District's Annual Clean Air Grant program.

Placer County includes 555,000 acres of Sierra Nevada forested lands, which has had an increasing number of wildfires exacerbated by vegetation build-up. As has often occurred in past summers, Placer County residents and visitors were impacted by smoke in August 2013 from the American and Rim wildfires. During these events, air quality data from numerous monitors was presented in an easy to read graphics, posted daily, on the newly created www.northcasmoke.blogspot.com website. The information was invaluable to the public for making informed decisions on their health.

Since wildfires can have a significant impact on public health as well as have the potential to cause enormous environmental and economic damage, the Air District has a strong interest in reducing their frequency and intensity. Accordingly, a number of Air District-sponsored forest-based initiatives are focused in this area. The Air District is actively supporting the implementation of SB1122, a CPUC feed-in tariff program to incentivize forest biomass generation in communities at risk for wildfire; the evaluation of bioenergy conversion technology suitable for small-scale strategically located and distributed systems utilizing woody biomass wastes from forest fuel treatments, timber harvest residues, and defensible space clearings; and the development of GHG offset protocols for bioenergy, biochar and black carbon. The sale of GHG offsets may provide the funds to bridge the funding gap

in transporting forest biomass to bioenergy conversion facilities. In addition, the Air District is also supporting research on the carbon benefits of avoided wildfire through various fuel load treatment prescriptions as well as working to quantify the societal benefits associated with preserving and enhancing the forested landscape and County's vital upland watersheds. These efforts will benefit in reducing GHG emissions as well as criteria pollutants.

Concurrent with the work cited above, the Air District continues with more "traditional" programs in striving to reach attainment of air quality standards. To this end, two significant air quality plans were recently approved by the Air District board. The first, the Air District's Triennial Ozone Plan, required by the California Clean Air Act, showed continued improvement in air quality, with the peak ambient ozone concentrations continuing to decline. The second was the Regional PM 2.5 plan, for achieving the federal Particulate Matter (PM) 2.5 standard based on three consecutive years (2009-2011) of satisfactory air quality data.

The Air District also continued the successful annual Clean Air Grant program which awards grants to projects with the greatest emission reductions not otherwise mandated. In 2013, the Air District awarded $1.1 million in grants for the retrofitting of heavy duty on- and off-road vehicles, providing public education/outreach, mitigating traffic congestion and enhancing a biomass usage program. Since 2001 the Air District has achieved 998 tons of emission reductions in NOx, ROG, and PM with funds provided by local motor vehicle registration fees and project mitigation fees.

Sacramento Metropolitan Air Quality Management District

The Sacramento Metropolitan Air Quality Management District works with local, state and federal government agencies, the business community and private citizens to achieve and maintain healthy air quality for Sacramento County. The Air District's Board of Directors includes representation from the various cities within Sacramento County. These include: all five Sacramento County Board of Supervisors, four members of the Sacramento City Council, one member representing each of the cities of Citrus Heights, Elk Grove, Folsom and Rancho Cordova and one member representing the cities of Galt and Isleton. Since 2004, Larry Greene has led the Air District as its Executive Director.

The Air District has completed its seventh Check Before You Burn season (as per Rule 421: Mandatory Episodic Curtailment of Wood and Other Solid Fuel Burning – which prohibits burning when weather conditions trap wood smoke at ground level). Since 50 percent of the particulate matter emissions in the winter can be attributed to wood burning, this rule reduces the number of

days the Air District exceeds the federal health standard. Advertising, outreach, enforcement efforts, and incentives to replace dirty wood burning devices are essential parts of Sacramento's attainment of the PM2.5 federal standard.

In 2013, the Air District funded just under $14 million in mobile on-road and off-road emission reduction projects, including modernizing 67 on-road heavy-duty trucks, upgrading over 101 pieces of off-road equipment, and 63 agricultural electric pump replacements. In addition, the Air District reviews, provides guidance and develops comments on land-use specific plans as well as local agency Climate Action Plans, General Plans and regional Transportation Plans.

The annual Spare The Air program continues to encourage residents to change behavior to reduce air pollution, including a focus on reducing driving and using other means of transportation on Spare The Air days. Through multiple outreach efforts, the Communications Office recorded 14,268 Air Alert subscribers; 3,182 Spare The Air business and community partners, and 2,443 Check Before You Burn partners who distribute air quality information to the public. In addition, social media efforts resulted in 981 Twitter followers, 965 Facebook followers and the newly debuted Instagram page gained 220 followers. The Spare The Air annual survey shows that in 2013, residents of the Sacramento region who habitually drive less in the summer to improve air quality reduced .55 tons per day of ozone precursors.

San Diego County Air Pollution Control District

For the San Diego Air District, 2013 was the cleanest year on record, as the ozone design values continue their decades-long declining trend. Accordingly, in 2013, the U.S. EPA redesignated the San Diego Air District as an attainment area for the 1997 8-hour federal ozone standard. The Air District has also been designated as a marginal non-attainment area for the more health-protective 2008 8-hour federal ozone standard, and monitoring data show continued progress toward achieving this standard (marginal non-attainment requires attainment by the year 2015). The Air District also continues to meet all air quality standards for PM2.5, including the tightened annual standard that the U.S. EPA promulgated in early 2013, which brings the federal standard in line with the state standard.

San Joaquin Valley Air Pollution Control District

For the first time in recorded history, the San Joaquin Valley in 2013 had zero violations of the hourly ozone standard established under the Federal Clean Air Act, down from 281 individual hours exceeding the standard in 1996. In 2004, the U.S. EPA classified the Valley as "Extreme" non-attainment for this standard, meaning that reaching the standard, at that time, was deemed impossible. The San Joaquin Valley is the first and only region in the nation with "Extreme" classification to attain the standard. This remarkable feat dramatically exemplifies the air basin's overall progress over the past decade.

Reaching this milestone has been a key focus of the Valley's air quality-management strategies for more than two decades. Since 1992, the Air District has developed and implemented numerous attainment plans and adopted more than 500 of the most stringent rules in the nation to obtain the significant emission reductions needed to demonstrate attainment. Additionally, the Air District has supplemented its regulatory programs with a robust, voluntary incentive program, providing more than $500 million in incentive funds, resulting in a reduction of more than 100,000 tons of emissions.

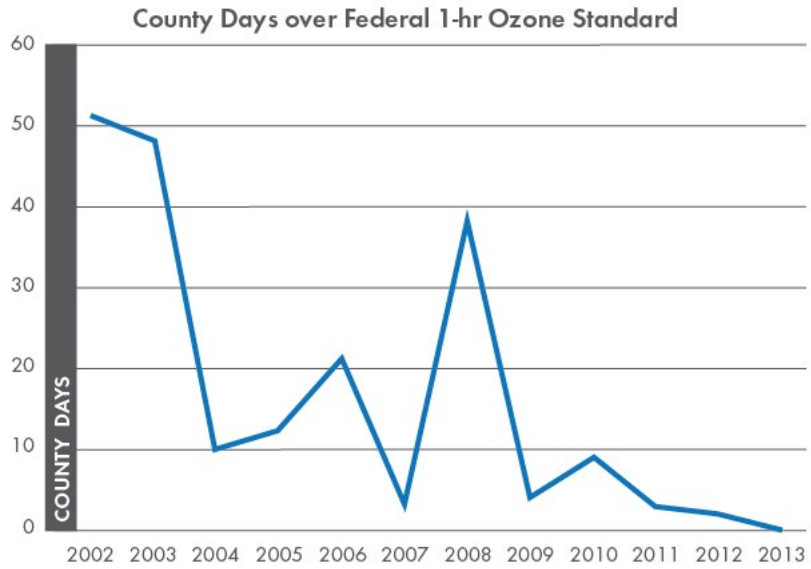
For the first time in recorded history, the San Joaquin Valley in 2013 did not record any violations of the hourly ozone standard established under the Federal Clean Air Act

However, the air basin still faces major air-pollution challenges due to its topography and meteorology, and socioeconomic challenges to balance air-quality improvement with economic vitality in this perennially struggling region.

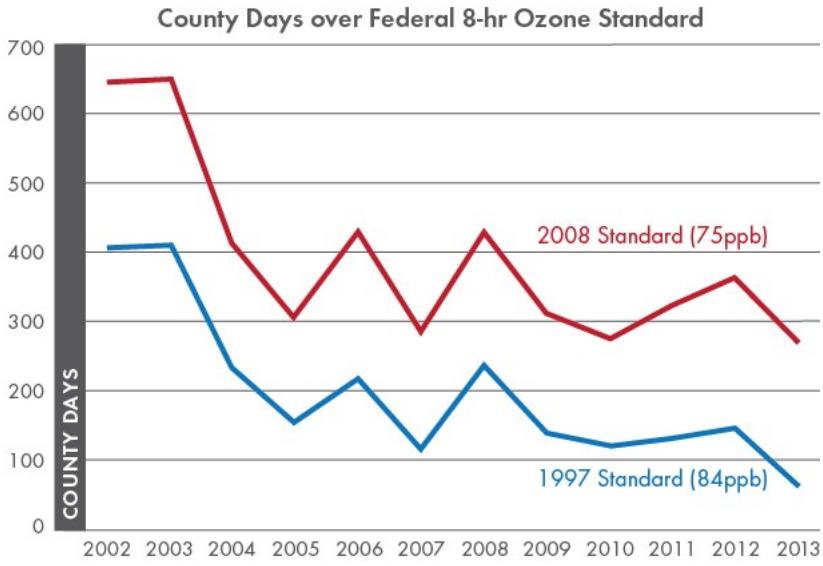
The Air District's air quality progress in 2013 and remaining challenges are summarized as follows.

Ozone: Despite strings of triple-digit temperatures and numerous wildfires, 2013 was the cleanest ozone year on record.

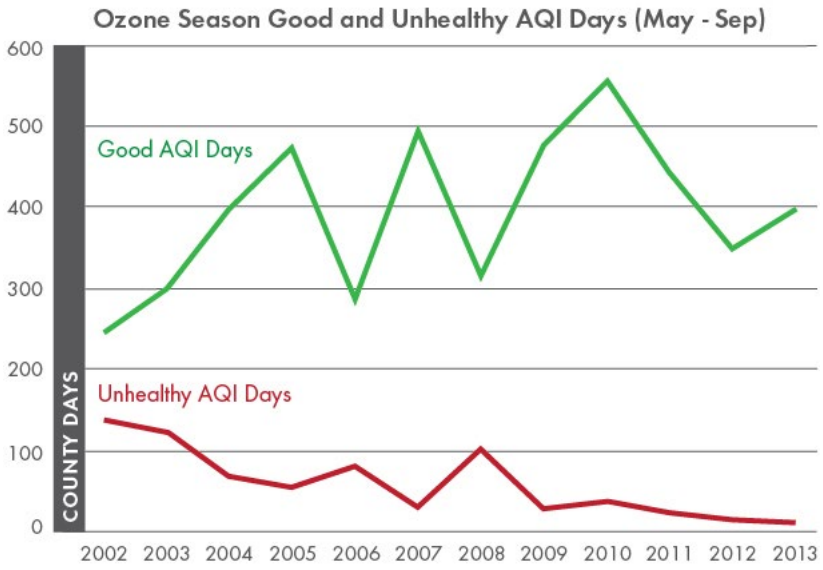
- In 1996, there were 281 hours over the 1-hour standard
- In 1998, there were 321 hours over the 1-hour standard
- In 2012, the air basin had just seven hours over the 1-hour standard
- In 2013, for the first time in Valley history, no hours over this standard were recorded



The Valley also saw dramatic improvements in the 8-hour ozone standard, with the lowest number of exceedances on record and the lowest design value on record. As a result, the number of Good AQI Days during the ozone season increased while the number of Unhealthy AQI Days decreased.



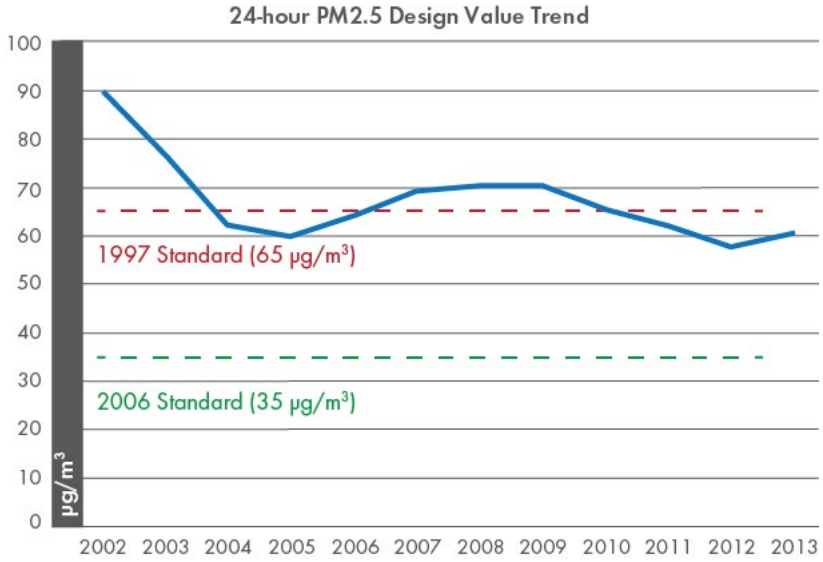
Days over the federal 8-hour standards continued to decline; and 2013 had fewest exceedances of the 1997 ozone standard in Valley history.



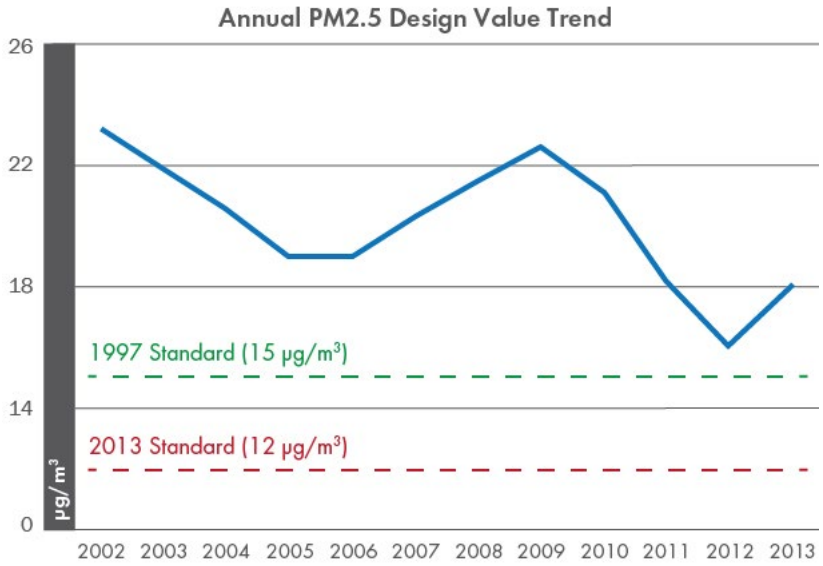
Continued decrease in the number of Unhealthy AQI County-Days during the ozone season of May to September.

Particulate Matter: As was the case with virtually every air basin in California, the winter of 2013-14 in the Valley was plagued with unrelentingly stubborn atmospheric stagnation, strong inversions and record low precipitation, resulting in an elevated number of Unhealthy air-quality days. Due to these elevated numbers, both the 24-hour and annual average PM2.5 design values for 2013 have increased across the Valley, as displayed in the charts below.

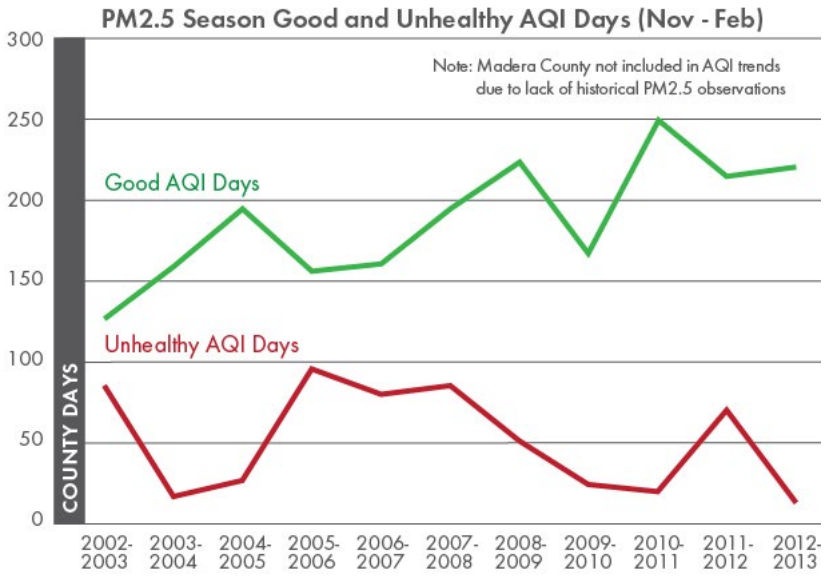
Despite exceptionally high peak PM2.5 concentrations in the winter of 2013-14 as a result of these factors, long-term trends in fine particulates continue to decline. And even with poor meteorology, the Air District's wood-burning curtailment regulation, Rule 4901, was effective at preventing PM2.5 levels from climbing even higher.



The 24-hour Design Values remain below the 1997 federal standard.



The increase in annual PM2.5 Design Values is due to the extreme meteorological conditions at the end of 2013.



The positive trends for both Good days and Unhealthy days continued in the 2012/13 wood-burning season.

San Luis Obispo County Air Pollution Control District

Located along the central coast of California, the Air District encompasses approximately 3,299 square miles and a population of 273,231. The terrain spans coastal, agricultural, plains and low rolling hills, which creates varying air quality characteristics for the different regions within the Air District.

San Luis Obispo County is designated non-attainment for the state PM10 standard. Windblown dust from the Oceano Dunes State Vehicular Recreation Area in Southern San Luis Obispo County impacts the Nipomo Mesa, where most of the PM10 standard exceedances are measured. Rule 1001 was adopted in November 2011 to reduce the particulate matter emissions from off-road vehicle recreation in the coastal dunes area.

Year	Exceedances of the State PM10 Standard
2000	48
2013	93

In 2010, an additional PM10 monitoring station was installed in the South County and the PM sampling methodology was changed at all monitoring sites county-wide from a 1- n-6 day manual method to hourly continuous sampling. From 2010–2012, about 60-70 exceedances of the state PM10 standard were measured annually at the new south county monitoring site. It is likely the increase in exceedances between 2000 to 2012 was largely due to these monitoring changes; it is unknown to what extent an actual deterioration of air quality in that region may have been a contributing factor during that period.

However, the large increase in exceedances between 2012 and 2013 is likely the result of the extreme drought conditions experienced statewide which resulted in long periods of stagnant conditions that trapped pollution close to the ground.

Ninety-nine percent of San Luis Obispo County residents live in areas that are in attainment of the federal ozone air quality standard; however, the remote eastern portion of the county is designated non-attainment for the 8-hour federal ozone standard.

Year	Exceedances of the Federal 8-Hour Ozone Standard
2000	1
2013	3

In mid-2000, the Air District established a monitoring site in the rural eastern part of the County, called Red Hills. This was a research site and official data reporting did not begin until 2006. That year, the Air District also established a second monitoring in this portion in the county, called Carrizo Plains. Thus, data from these sites are not included in tallies of exceedances for years 2000-2005, including the table above. These stations are located in the remote, sparsely populated eastern portion of the Air District, which can be significantly impacted by transported pollution originating from outside of the Air District. The 2013 ozone statistics provided in this report include data from these stations, resulting in a reduced number of "Good" AQI days and an increased number of days exceeding the standard as compared to 2000 data. The decrease in the number of "Good" days and increase in number of days exceeding the standard from 2000 to 2013 are not a result of deteriorating air quality, but rather an expanded ozone monitoring network that records air pollution transported into the region.

Santa Barbara County Air Pollution Control District

Santa Barbara County is designated non-attainment for the state 24-hour PM10 and 8-hour ozone standards. The county remains in attainment of the federal PM10 and PM2.5 standards, and the federal 8-hour ozone standard, and 2013 continued the trend of lower ozone levels over time. The exceptionally dry weather conditions in 2013 contributed to exceedances of the state PM10 standard, primarily in the northern portion of the county under high wind conditions.

In 2013, the Air District continued to develop collaborative initiatives to reduce emissions from ships transiting in the Santa Barbara Channel. In February 2014, the Air District did a joint presentation with its Maersk partner on this topic at the EPA-NACAA (National Association of Clean Air Agencies) National Air Quality Conference. In 2014 the Air District is working with partners to initiate a vessel speed reduction incentive trial program in the Santa Barbara Channel modeled after the successful programs at the Ports of Los Angeles and Long Beach. Reducing shipping emissions is critical to our ability to continue progress toward attainment of the state ozone standard and to maintaining attainment of the federal ozone standard.

In 2013, the Air District continued developing and evaluating potential solutions to the scarcity of available criteria pollutant emission offsets in Santa Barbara County. The chart below depicts the rapidly rising costs of emission reduction credits caused by the lack of offset availability. The Air District also continued to implement several popular programs including: the Old Car Buy Back Program, electric vehicle infrastructure partnership, diesel engine grant programs, the Care for Our Earth teacher grants program, and it continued to lead the award-winning Santa Barbara Car Free partnership. More information about the Air District is available at www.OurAir.org, and www.twitter.com/OurAirSBC.

Rising Cost of Emission Reduction Credits

Shasta County Air Quality Management District

The Air District encompasses the northernmost portion of the Sacramento Valley Air Basin. The Air District is in attainment for all federal air quality standards.

Efforts to enhance air quality within the Air District include grant opportunities and public outreach. Grants continue to be periodically available in the Lower Emission School Bus Program, the Carl Moyer Program and an annual Woodstove Replacement Program. Air District public outreach includes utilizing the U.S. EPA's Enviroflash service which can update individuals on ambient air quality levels via e-mail. The Air District also maintains a webpage which displays the AQI values for ozone and PM2.5 monitors located throughout the Sacramento Valley. A visibility camera is also available at the Air District's website at http://www.co.shasta.ca.us/index/drm_index/aq_index/aq_map.aspx

South Coast Air Quality Management District

Air quality in the South Coast region continues to improve over the long term, although the maximum concentration and number of days each year in which the federal ozone standard is exceeded fluctuates from year to year due to weather and other conditions. In 2013, the number of days exceeding the federal ozone standard was the lowest ever recorded in the South Coast Air Basin.

In addition, air pollution controls have significantly reduced levels of PM2.5 across the region and preliminary 2013 data shows that the Southland is achieving the 2006 annual PM2.5 federal standard and is very close to achieving the 24-hour federal standard.

The Air District continues to face major air quality challenges, particularly in reducing mobile source emissions. Nitrogen oxide emissions must be further reduced by 65 to 75 percent or more to meet federal health standards for ozone and PM2.5.

The Air District achieved significant accomplishments in 2013, including:

- Adopting California's first comprehensive notification and reporting requirements for hydraulic fracturing and other oil well stimulation activities;
- Conducting a wide range of air toxics monitoring activities throughout the Basin, including odor investigations, near-source toxic metals monitoring, and the fourth Multiple Air Toxics Exposure Study (MATES IV);
- Adopting more stringent requirements for residential and open burning, including lowering the threshold for declaring a residential no-burn day from 35 to 30 micrograms per cubic meter;
- Awarding nearly $51 million for air quality improvement projects in the Coachella Valley using air pollution mitigation funding from the CPV Sentinel power plant;
- Launching the near-road NO2 monitoring network at two locations next to busy Southern California freeways;
- Experimenting with state-of-the art optical remote sensing monitoring techniques to better characterize and refine petroleum refinery-related emissions and inventories;

- Installing air monitors to detect hydrogen sulfide gas during odor events at the Salton Sea;
- Achieving an $8 million settlement with The Home Depot to settle air quality violations for allegedly selling non-compliant paints and other coatings; and
- Funding close to $153 million for the replacement and/or retrofit of older diesel trucks and buses as well as innovative clean-technology projects such as the demonstration and deployment of a zero-emission cargo container moving system.

Tuolumne County Air Pollution Control District

The Air District is a small rural district with a total population of approximately 56,000. Seventy-seven percent of land within the Air District is federal land, either U.S. Forest Service land or Yosemite National Park land. Major air quality concerns are smoke impacts from wildfires, opening burning, and fireplaces and old woodstoves.

Tuolumne County's air quality continues to improve. In 2012, the U.S. EPA not only determined that Tuolumne County had attained the 1997 8-hour federal ozone standard, but designated the Air District as attainment for the more stringent 2008 8-hour federal ozone standard.

Tuolumne County Air Pollution Control District's biggest challenge in 2013 was the Rim Fire that began August 17, 2013 and burned over 256,000 acres. The smoke impacts from this fire were far reaching, traveling as far north as Idaho. Portions of California experienced poor air quality until mid-September as a result of this wildfire. The Air District's newly purchased EBAM along with approximately twenty-two other USFS, ARB, and National Park monitors provided real time data on smoke impacts to the local communities and the surrounding regions.

In 2013 Tuolumne County APCD applied to participate in a new grant incentive program. TIMBER was implemented to help fund the replacement of logging trucks. The Air District continues to participate in the Carl Moyer Program, although it is becoming more difficult to find projects that are eligible. In addition to the Carl Moyer Program, the Air District administers its own grant program to help replace and retrofit diesel engines for county and city public works vehicles.

Ventura County Air Pollution Control District

Ventura County is located on the coast of California between Los Angeles and Santa Barbara Counties. Ventura County is non-attainment for the federal and state ozone standards and the state PM10 standard. The county is in attainment of all other federal and state clean air standards.

Ventura County continues to make great progress towards meeting the federal 0.075 ppm 8-hour ozone standard as evidenced by a steady decades-long decrease in 8-hour ozone design values. In

2003, Ventura County's 8-hour design value was 0.095 ppm. By 2013 that value had decreased to 0.079 ppm. Likewise, over that same time period, the number of days over the federal 8-hour ozone standard declined from 68 days in 2003 to only 4 days in 2013, making 2013 Ventura County's cleanest, most smog-free year on record. Ventura County is well on its way towards meeting the federal 8-hour ozone standard despite a growing population. PM10 levels in Ventura County have also improved over the last decade, although not as dramatically as ozone levels.

These improvements in Ventura County's air quality are major steps forward for public health in the county, as both ozone and particulate matter have significant adverse public health effects. Of course, the Air District must continue working to further reduce air pollutant emissions in Ventura County to reach all state and federal clean air standards. To achieve that goal, the Air District must not only focus its efforts on reducing smog-forming emissions from stationary sources as it has for many decades, but must also address emissions from mobile sources as well. Two of the Air District's most notable mobile source strategies that are helping Ventura County reach healthful air quality levels are its Carl Moyer and Plug-in Electric Vehicle (PEV) Programs.

The Carl Moyer Program encourages owners of equipment with old, high polluting engines to replace their equipment with newer, much cleaner engines. The Air District has participated in the Carl Moyer Program since its inception in 1998. Over that time, the Air District has awarded nearly $28 million in grants to replace 828 high-polluting engines with much cleaner, fuel efficient engines thereby ridding Ventura County's air of smog-forming pollutants, toxic particulate matter, and greenhouse gases beyond those achieved by the Air District's traditional clean air programs. Not only has the program significantly reduced air emissions in the county, but it has also provided assistance to the local agricultural community, marine fishing industry, and others. The Air District's Carl Moyer Program has proven itself to be highly cost-effective and critically important to the Air District's overall strategy to provide clean air to the citizens of Ventura County.

Over the last three years, the Air District's PEV program has been actively supporting the rollout of electric vehicles in the county. Electric vehicles will be major contributors to cleaner air throughout California in the years ahead. The Air District has taken a lead role with the Plug-in Central Coast coalition effort to develop a PEV readiness plan for San Luis Obispo, Santa Barbara, and Ventura counties. Plug-in Central Coast is the regional PEV Coordinating Council for Ventura, Santa Barbara, and San Luis Obispo counties. The PEV planning process for Plug-in Central Coast was initiated by the joint efforts of C5 – the Central Coast Clean Cities Coalition – and its key partners, which include the Ventura, Santa Barbara, and San Luis Obispo County Air Districts, and the Community Environmental

Council of Santa Barbara. Key leaders from these organizations formed the Steering Committee of Plug-in Central Coast and successfully obtained two grants for tri-county EV planning: $50,000 from the U.S. Department of Energy for Phase I of the Central Coast PEV Readiness Plan and a $200,000 grant from the California Energy Commission for Phase II of the regional PEV Readiness Plan. The Air District administered these grants for the tri-county area. In addition, the Air District has formed a local EV council called Plug-in Ventura County to focus on the needs of local EV drivers.

Plug-in Central Coast is also applying for California Energy Commission grant funds to install more public EV charging stations in the tri-county area. In addition, Air District grants have been used to pay for equipment costs of public PEV charging stations in Ventura County, including the Thousand Oaks Transportation Center, Ventura Harbor, California State University Channel Islands, the Camarillo and East Ventura Metrolink Stations, Downtown Oxnard, and the Ventura County Government Center.

One of the primary goals of Plug-in Central Coast and Plug-in Ventura County is to educate the public, businesses, and local governments about the benefits of EVs. Both organizations have made great strides in this effort. Green Car Shows in Santa Barbara, Ventura, and Oxnard introduced more than 50,000 drivers to the many advantages of EV ownership. In addition, many more people were made aware of EVs by numerous local newspaper articles in the Ventura County Star, the VC Reporter, Ventura Breeze, the Sierra Club newsletter, and the Santa Barbara News-Press. The National Plug-in Day event in Oxnard in September 2013 was posted on numerous websites of Plug-in America, Oxnard Convention and Visitor Bureau, Tesla Motors, The Collection, BigCityBuzz, EventBrite, Noozhawk, and Eventfinda, and the Air District. In addition, Plug-in Central Coast performed outreach to over 100 local workplaces, cities, condominium associations, the Ventura County Planners Association, and the Ventura County Sustainability Committee.

As in previous years, 2013 was an active year for the Air District's public information and outreach programs that educate county citizens about air quality, the health effects of air pollution, and actions individuals can take to improve the air. This is done through publications, social media, outreach events, educational programs, and special projects. The program is presently implementing an air quality campaign, The Air Zone, which consists of a traveling display, a Facebook page, and a booklet containing tips, "green" testimonials, and air quality information. The Air District has an active presence at local public outreach events for Earth Day, Rideshare Week, and health fairs. It also partners with California State University Channel Islands for the Science, Technology, Engineering,

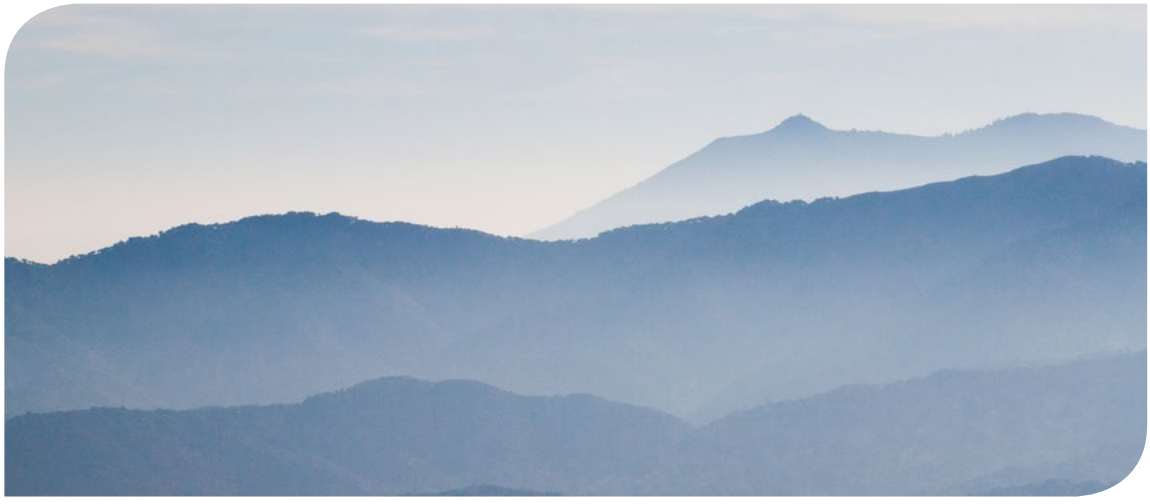
and Science event, and with Channel Islands National Park on its Tidepools to School Program. The Air District is currently creating an air quality exhibit with the City of Oxnard's Gull Wings Children's Museum scheduled to open in fall 2014.

Yolo-Solano Air Quality Management District

The Yolo-Solano AQMD continued its proactive work to ensure a clean air future for its residents in 2013. This included amendments to multiple rules, development of new transportation funding programs and the launch of a clean transportation outreach program, Yolo-Solano Go Clean. The Air District also improved the efficiency of its agricultural burn system and worked to strengthen its asbestos program, both of which are critical to protecting public health.

The Air District also addressed concerns of local small businesses by taking a proactive approach to seek reform in the Truck and Bus Rule, with a keen interest in assisting agricultural haulers. The Air District developed local, bilingual outreach material to provide region-specific information to affected companies and held a town hall meeting with local truckers.

2013 was one of the cleanest years on record for Yolo-Solano residents as: there were no days in which local air quality was unhealthy for any group due to ozone, and only five days in which air quality was unhealthy for sensitive groups due to fine particulate pollution. The Air District is working to ensure that in 2014 and beyond all Yolo-Solano residents can breathe clean air every day.



APPENDICES

APPENDIX A – UNDERSTANDING THE AIR QUALITY INDEX

The Air Quality Index (AQI) is a tool for reporting daily air quality levels. The index demonstrates how clean "Good" or polluted "Unhealthy" the air is using colors and a scale from zero to 500, and what associated health effects might be a concern. The AQI focuses on health effects that may be experienced within a few hours or days after breathing polluted air.

The AQI is calculated for the major air pollutants regulated by the Federal Clean Air Act. For each of these pollutants, the U.S. Environmental Protection Agency established national air quality standards to protect health. An AQI value of 100 generally corresponds to the national ambient air quality standard (NAAQS) for the pollutant.

For particulate matter, an AQI value of 101 or higher corresponds to the 24-hour PM2.5 NAAQS of 35 micrograms per cubic meter (or higher). For ground-level ozone, an AQI value of 101 or higher corresponds to the 8-hour ozone NAAQS of 75 parts per billion.

The Air Quality Index (AQI)

The table below illustrates air quality index levels.

Good (0-50)	Air Quality is considered satisfactory, and air pollution poses little or no risk.
Moderate (51-100)	Unusually sensitive people should consider limiting prolonged outdoor exertion.
Unhealthy for Sensitive Groups (101-150)	The following groups should limit prolonged or heavy outdoor exertion: • People with lung disease, such as asthma • People with heart disease • Children and older adults • People who are active outdoors
Unhealthy (151-200)	The following groups should avoid prolonged or heavy outdoor exertion: • People with lung disease, such as asthma • People with heart disease • Children and older adults • People who are active outdoors Everyone else should limit prolonged outdoor exertion.
Very Unhealthy (201-300)	The following groups should avoid prolonged or heavy outdoor exertion: • People with lung disease, such as asthma • People with heart disease • Children and older adults • People who are active outdoors Everyone else should limit prolonged outdoor exertion.
Hazardous (over 300)	Indicates a health warning of emergency conditions. The entire population is more likely to be affected. Everyone should avoid all physical activity outdoors.

APPENDIX B – AQI FOR OZONE

This table shows the **percent** of days in each of the air quality reporting levels in each county for the years 2000-2002 and 2011-2013 for ozone. For ozone, an AQI value of 101 (unhealthy for sensitive groups) corresponds to the 8-hour ozone NAAQS of 75 parts per billion.

Data may not be complete for some Air Districts, and all data should be treated as preliminary and subject to change when validated. In addition, some Air Districts may have changed the number of stations or frequency of monitoring between 2000 and 2013. Please refer to your local Air District for more specific information. Due to rounding, the numbers may not always add up to 100 percent.

County	Air District	Good		Moderate		Unhealthy for Sensitive Groups		Unhealthy		Very Unhealthy	
		2000-2002	2011-2013	2000-2002	2011-2013	2000-2002	2011-2013	2000-2002	2011-2013	2000-2002	2011-2013
		Percent of Days for Ozone									
Alameda	Bay Area	94	95	4	4	2	1	0	0	0	0
Alpine*	Great Basin	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Amador	Amador	73	84	20	15	6	1	0	0	0	0
Butte	Butte County	71	79	21	19	8	1	0	0	0	0
Calaveras	Calaveras County	71	83	21	16	8	1	0	0	0	0
Colusa	Colusa County	88	98	11	2	1	0	0	0	0	0
Contra Costa	Bay Area	91	95	7	4	2	1	0	0	0	0
Del Norte*	North Coast Unified	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
El Dorado	El Dorado County	59	70	23	24	14	6	4	0	0	0
Fresno	San Joaquin Valley	42	57	21	25	24	16	12	2	1	0
Glenn	Glenn County	85	94	14	6	1	0	0	0	0	0
Humboldt	North Coast Unified	0	100	0	0	0	0	0	0	0	0
Imperial	Imperial County	69	77	24	19	6	4	1	0	0	0
Inyo	Great Basin	70	80	27	20	3	0	0	0	0	0
Kern	Eastern Kern	58	69	24	25	16	6	1	0	0	0
Kern	San Joaquin Valley	49	58	18	25	22	15	10	1	1	0

AQI FOR OZONE

County	Air District	Good		Moderate		Unhealthy for Sensitive Groups		Unhealthy		Very Unhealthy	
		2000-2002	2011-2013	2000-2002	2011-2013	2000-2002	2011-2013	2000-2002	2011-2013	2000-2002	2011-2013
		Percent of Days for Ozone									
Kings	San Joaquin Valley	60	68	22	26	16	6	2	0	0	0
Lake	Lake County	97	99	3	1	0	0	0	0	0	0
Lassen*	Lassen	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Los Angeles	Antelope Valley	63	63	20	26	15	11	3	0	0	0
Los Angeles	South Coast	62	60	19	24	12	14	5	2	1	0
Madera	San Joaquin Valley	68	70	22	24	9	6	0	0	0	0
Marin	Bay Area	100	100	0	0	0	0	0	0	0	0
Mariposa	Mariposa	61	73	24	25	14	2	0	0	0	0
Mendocino	Mendocino	99	100	1	0	0	0	0	0	0	0
Merced	San Joaquin Valley	59	72	21	23	16	5	3	0	0	0
Modoc*	Modoc	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mono*	Great Basin	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Monterey	Monterey Bay Unified	97	99	2	1	0	0	0	0	0	0
Napa	Bay Area	99	99	1	1	0	0	0	0	0	0
Nevada	Northern Sierra	59	74	25	24	15	2	1	0	0	0
Orange	South Coast	86	91	12	8	2	1	0	0	0	0
Placer	Placer County	71	79	16	17	10	4	2	0	0	0
Plumas*	Northern Sierra	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Riverside	Mojave Desert	NA	87	NA	12	NA	1	NA	0	NA	0
Riverside	South Coast	48	49	20	27	20	21	10	3	1	0
Sacramento	Sacramento	70	78	17	14	10	7	2	1	0	0
San Benito	Monterey Bay Unified	82	91	14	9	4	0	0	0	0	0
San Bernardino	Mojave Desert	50	51	24	29	20	19	5	2	1	0
San Bernardino	South Coast	52	55	18	18	16	20	10	6	4	0

AQI FOR OZONE

County	Air District	Good		Moderate		Unhealthy for Sensitive Groups		Unhealthy		Very Unhealthy	
		2000-2002	2011-2013	2000-2002	2011-2013	2000-2002	2011-2013	2000-2002	2011-2013	2000-2002	2011-2013
		Percent of Days for Ozone									
San Diego	San Diego County	65	72	24	25	10	3	1	0	0	0
San Francisco	Bay Area	100	100	0	0	0	0	0	0	0	0
San Joaquin	San Joaquin Valley	86	83	10	14	3	2	0	0	0	0
San Luis Obispo	San Luis Obispo County	86	77	13	21	1	2	0	0	0	0
San Mateo	Bay Area	100	100	0	0	0	0	0	0	0	0
Santa Barbara	Santa Barbara County	75	92	20	7	5	0	0	0	0	0
Santa Clara	Bay Area	92	95	6	5	1	0	0	0	0	0
Santa Cruz	Monterey Bay Unified	97	99	3	1	0	0	0	0	0	0
Shasta	Shasta County	81	88	17	11	2	0	0	0	0	0
Sierra*	Northern Sierra	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Siskiyou	Siskiyou County	97	98	3	2	0	0	0	0	0	0
Solano	Bay Area/Yolo-Solano	94	96	5	4	1	0	0	0	0	0
Sonoma	Bay Area	98	99	2	1	0	0	0	0	0	0
Sonoma	Northern Sonoma	99	99	1	1	0	0	0	0	0	0
Stanislaus	San Joaquin Valley	75	75	17	18	7	6	1	0	0	0
Sutter	Feather River	83	96	13	4	4	0	0	0	0	0
Tehama	Tehama County	76	81	19	18	5	1	0	0	0	0
Trinity*	North Coast Unified	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Tulare	San Joaquin Valley	51	57	15	21	26	21	8	1	0	0
Tuolumne	Tuolumne County	60	80	26	20	13	0	1	0	0	0
Ventura	Ventura County	62	79	24	19	12	3	2	0	0	0
Yolo	Yolo-Solano	88	92	10	7	3	0	0	0	0	0

AQI FOR OZONE

County	Air District	Good		Moderate		Unhealthy for Sensitive Groups		Unhealthy		Very Unhealthy	
		2000-2002	2011-2013	2000-2002	2011-2013	2000-2002	2011-2013	2000-2002	2011-2013	2000-2002	2011-2013
		Percent of Days for Ozone									
Yuba*	Feather River	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

* Counties do not contain monitoring stations for ozone.

APPENDIX C – AQI FOR PARTICULATE MATTER

This table shows the **percent** of days in each of the air quality reporting levels in each county for the years 2000-2002 and 2011-2013 for fine particulate matter. For fine particulate matter, an AQI value of 101 (unhealthy for sensitive groups) corresponds to the 24-hour PM2.5 NAAQS of 35 micrograms per cubic meter.

Data may not be complete for some Air Districts, and all data should be treated as preliminary and subject to change when validated. In addition, some Air Districts may have changed the number of stations or frequency of monitoring between 2000 and 2013. Please refer to your local Air District for more specific information. Due to rounding, the numbers may not always add up to 100 percent.

County	Air District	Good		Moderate		Unhealthy for Sensitive Groups		Unhealthy		Very Unhealthy	
		2000-2002	2011-2013	2000-2002	2011-2013	2000-2002	2011-2013	2000-2002	2011-2013	2000-2002	2011-2013
		Percent of Days for Particulate Matter									
Alameda	Bay Area	62	68	31	32	6	1	2	0	0	0
Alpine*	Great Basin	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Amador*	Amador	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Butte	Butte County	67	76	24	23	5	2	3	0	0	0
Calaveras	Calaveras County	84	88	15	12	1	0	0	0	0	0
Colusa	Colusa County	77	85	22	15	1	0	0	0	0	0
Contra Costa	Bay Area	67	74	25	26	6	0	2	0	0	0
Del Norte*	North Coast Unified	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
El Dorado*	El Dorado County	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fresno	San Joaquin Valley	40	47	40	43	11	8	8	3	0	0
Glenn	Glenn County	85	94	14	6	1	0	0	0	0	0
Humboldt	North Coast Unified	82	83	18	17	0	0	0	0	0	0
Imperial	Imperial County	43	53	53	45	3	1	2	0	0	0
Inyo	Great Basin	91	88	5	10	2	1	2	1	0	0
Kern	Eastern Kern	86	90	14	10	0	0	0	0	0	0
Kern	San Joaquin Valley	33	52	49	38	10	7	8	4	0	0

AQI FOR PARTICULATE MATTER

County	Air District	Good		Moderate		Unhealthy for Sensitive Groups		Unhealthy		Very Unhealthy	
		2000-2002	2011-2013	2000-2002	2011-2013	2000-2002	2011-2013	2000-2002	2011-2013	2000-2002	2011-2013
		Percent of Days for Particulate Matter									
Kings	San Joaquin Valley	38	49	42	42	13	7	7	2	0	0
Lake	Lake County	97	98	2	2	1	0	1	0	0	0
Lassen*	Lassen	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Los Angeles	Antelope Valley	76	96	24	3	0	1	0	0	0	0
Los Angeles	South Coast	12	42	67	56	16	2	5	0	0	0
Madera**	San Joaquin Valley	0	29	0	65	0	4	0	1	0	0
Marin	Bay Area	0	78	0	22	0	0	0	0	0	0
Mariposa*	Mariposa	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mendocino	Mendocino	86	84	12	16	1	0	1	0	0	0
Merced	San Joaquin Valley	46	61	40	35	11	4	3	0	0	0
Modoc*	Modoc	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mono*	Great Basin	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Monterey	Monterey Bay Unified	87	94	13	6	0	0	0	0	0	0
Napa	Bay Area	0	58	0	42	0	0	0	0	0	0
Nevada	Northern Sierra	86	90	14	9	0	0	0	0	0	0
Orange	South Coast	28	74	60	26	9	1	3	0	0	0
Placer	Placer County	73	90	22	9	4	1	0	1	0	0
Plumas	Northern Sierra	64	62	31	33	5	5	0	0	0	0
Riverside*	Mojave Desert	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Riverside	South Coast	14	38	58	59	19	2	9	0	0	0
Sacramento	Sacramento	68	74	26	23	4	3	2	0	0	0
San Benito*	Monterey Bay Unified	NA	96	NA	4	NA	0	NA	0	NA	0
San Bernardino	Mojave Desert	59	99	41	1	0	0	0	0	0	0
San Bernardino	South Coast	9	42	66	56	17	2	8	0	0	0
San Diego	San Diego County	28	66	66	34	6	0	0	0	0	0

AQI FOR PARTICULATE MATTER

County	Air District	Good		Moderate		Unhealthy for Sensitive Groups		Unhealthy		Very Unhealthy	
		2000-2002	2011-2013	2000-2002	2011-2013	2000-2002	2011-2013	2000-2002	2011-2013	2000-2002	2011-2013
		Percent of Days for Particulate Matter									
San Francisco	Bay Area	60	76	33	24	5	0	2	0	0	0
San Joaquin	San Joaquin Valley	61	61	30	36	7	3	2	0	0	0
San Luis Obispo	San Luis Obispo County	77	59	20	40	2	0	1	0	0	0
San Mateo	Bay Area	68	77	27	22	4	0	0	0	0	0
Santa Barbara	Santa Barbara County	69	72	30	28	1	0	0	0	0	0
Santa Clara	Bay Area	55	74	36	26	6	1	2	0	0	0
Santa Cruz	Monterey Bay Unified	85	96	15	4	0	0	0	0	0	0
Shasta	Shasta County	79	91	18	9	3	0	0	0	0	0
Sierra*	Northern Sierra	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Siskiyou**	Siskiyou County	0	88	0	11	0	1	0	0	0	0
Solano	Bay Area/Yolo-Solano	63	76	30	23	5	1	3	0	0	0
Sonoma	Bay Area	72	81	22	19	5	0	0	0	0	0
Sonoma***	Northern Sonoma	63	77	37	23	0	0	0	0	0	0
Stanislaus	San Joaquin Valley	54	53	34	39	7	7	5	1	0	0
Sutter	Feather River	70	83	27	16	2	1	1	0	0	0
Tehama**	Tehama County	0	80	0	20	0	0	0	0	0	0
Trinity**	North Coast Unified	0	93	0	7	0	0	0	0	0	0
Tulare	San Joaquin Valley	35	51	46	40	10	7	8	2	0	0
Tuolumne*	Tuolumne County	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ventura	Ventura County	35	62	61	38	4	0	0	0	0	0
Yolo	Yolo-Solano	78	87	20	13	1	1	1	0	0	0
Yuba*	Feather River	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

*Counties do not contain monitoring stations for PM2.5.

**Station was installed in 2009, data submission beginning in 2010.

***Based on PM10 data, 1 in 6 day sampling.

APPENDIX D – EXCEEDANCES: OZONE

This table shows the average **percent** of days in each county exceeding the 8-hour ozone standard in the reporting periods of 2000-2002 and 2011-2013 for comparison. Data may not be complete for some Air Districts, and all data should be treated as preliminary and subject to change when validated. In addition, some Air Districts may have changed the number of stations or frequency of monitoring between each reporting period. Please refer to your local Air District for more specific information.

County	Air District	Percent of Days exceeding the 8-hour NAAQS (75 ppb)	
		2000-2002	2011-2013
Alameda	Bay Area	2	1
Alpine*	Great Basin	No data	No data
Amador	Amador	7	1
Butte	Butte County	8	1
Calaveras	Calaveras County	9	1
Colusa	Colusa County	2	0
Contra Costa	Bay Area	2	1
Del Norte*	North Coast Unified	No data	No data
El Dorado	El Dorado County	18	6
Fresno	San Joaquin Valley	37	18
Glenn	Glenn County	1	0
Humboldt	North Coast Unified	0	0
Imperial	Imperial County	7	4
Inyo	Great Basin	3	0
Kern	Eastern Kern	18	6
Kern	San Joaquin Valley	33	16
Kings	San Joaquin Valley	18	7
Lake	Lake County	0	0
Lassen*	Lassen	No data	No data
Los Angeles	Antelope Valley	18	12
Los Angeles	South Coast	19	16
Madera	San Joaquin Valley	10	7
Marin	Bay Area	0	0
Mariposa	Mariposa	15	2
Mendocino	Mendocino	0	No data
Merced	San Joaquin Valley	20	5
Modoc*	Modoc	No data	No data
Mono*	Great Basin	No data	No data
Monterey	Monterey Bay Unified	0	0
Napa	Bay Area	0	0
Nevada	Northern Sierra	16	2

EXCEEDANCES: OZONE

County	Air District	Percent of Days exceeding the 8-hour NAAQS (75 ppb)	
		2000-2002	2011-2013
Orange	South Coast	2	1
Placer	Placer County	13	4
Plumas	Northern Sierra	1	0
Riverside	Mojave Desert	No data	1
Riverside	South Coast	32	24
Sacramento	Sacramento	13	8
San Benito	Monterey Bay Unified	4	0
San Bernardino	Mojave Desert	26	20
San Bernardino	South Coast	30	26
San Diego	San Diego County	11	3
San Francisco	Bay Area	0	0
San Joaquin	San Joaquin Valley	3	3
San Luis Obispo	San Luis Obispo County	1	2
San Mateo	Bay Area	0	0
Santa Barbara	Santa Barbara County	6	0
Santa Clara	Bay Area	1	0
Santa Cruz	Monterey Bay Unified	0	0
Shasta	Shasta County	2	0
Sierra*	Northern Sierra	No data	No data
Siskiyou	Siskiyou County	0	0
Solano	Bay Area/Yolo-Solano	1	0
Sonoma	Bay Area	0	0
Sonoma	Northern Sonoma	0	0
Stanislaus	San Joaquin Valley	8	6
Sutter	Feather River	3	0
Tehama	Tehama County	7	1
Trinity*	North Coast Unified	No data	No data
Tulare	San Joaquin Valley	34	22
Tuolumne	Tuolumne County	14	0
Ventura	Ventura County	14	3
Yolo	Yolo-Solano	3	0
Yuba*	Feather River	No data	No data

*Counties do not contain monitoring stations for ozone.

APPENDIX E – OZONE AIR QUALITY TRENDS

This table shows the **percent** above or below what the county is for the ozone National Ambient Air Quality Standards (NAAQS) over the averaging periods of 2000-2002 and 2011-2013 for comparison. A positive value means the county is above, or exceeds, the NAAQS, and a negative number means the county is below, or in attainment of the NAAQS. The data in this table illustrates the changes that have occurred over a reporting period. For example, Alameda County demonstrates an improvement in air quality since it was at about 8% over the NAAQS during the 2000-2002 period, but is now on average -5% below the NAAQS.

Data may not be complete for some Air Districts, and all data should be treated as preliminary and subject to change when validated. In addition, some Air Districts may have changed the number of stations or frequency of monitoring between the 2000-2002 and 2011-2013 averaging periods. Please refer to your local Air District for more specific information.

County	Air District	Percent Above/Below the Ozone NAAQS (75 ppb)	
		2000-2002	2011-2013
Alameda	Bay Area	8	-5
Alpine*	Great Basin	No data	No data
Amador	Amador	17	-5
Butte	Butte County	19	1
Calaveras	Calaveras County	23	-5
Colusa	Colusa County	1	-20
Contra Costa	Bay Area	4	-9
Del Norte*	North Coast Unified	No data	No data
El Dorado	El Dorado County	41	9
Fresno	San Joaquin Valley	53	25
Glenn	Glenn County	-1	-13
Humboldt*	North Coast Unified	No data	-39
Imperial	Imperial County	16	9
Inyo	Great Basin	8	-4
Kern	Eastern Kern	27	3
Kern	San Joaquin	49	20
Kings	San Joaquin Valley	32	12
Lake	Lake County	-15	-20
Lassen*	Lassen	No data	No data
Los Angeles	Antelope Valley	23	20
Los Angeles	South Coast	51	32
Madera	San Joaquin Valley	21	12
Marin	Bay Area	-37	-29
Mariposa	Mariposa	19	3
Mendocino	Mendocino	-27	-36
Merced	San Joaquin Valley	35	8

OZONE AIR QUALITY TRENDS

County	Air District	Percent Above/Below the Ozone NAAQS (75 ppb)	
		2000-2002	2011-2013
Modoc*	Modoc	No data	No data
Mono*	Great Basin	No data	No data
Monterey	Monterey Bay Unified	-15	-20
Napa	Bay Area	-16	-19
Nevada	Northern Sierra	31	3
Orange	South Coast	7	-4
Placer	Placer County	35	8
Plumas	Northern Sierra	-5	-100
Riverside*	Mojave Desert	No data	15
Riverside	South Coast	51	32
Sacramento	Sacramento	33	20
San Benito	Monterey Bay Unified	9	-7
San Bernardino	Mojave Desert	41	23
San Bernardino	South Coast	71	43
San Diego	San Diego County	27	7
San Francisco	Bay Area	-41	-39
San Joaquin	San Joaquin Valley	8	5
San Luis Obispo	San Luis Obispo County	-3	3
San Mateo	Bay Area	-31	-29
Santa Barbara	Santa Barbara County	8	-13
Santa Clara	Bay Area	9	-9
Santa Cruz	Monterey Bay Unified	-12	-27
Shasta	Shasta County	4	-9
Sierra*	Northern Sierra	No data	No data
Siskiyou	Siskiyou County	-7	-20
Solano	Bay Area	-4	-11
Sonoma	Bay Area	-16	-29
Sonoma	Northern Sonoma	-16	-28
Stanislaus	San Joaquin Valley	27	15
Sutter	Feather River	9	-15
Tehama	Tehama County	11	-1
Trinity*	North Coast Unified	No data	No data
Tulare	San Joaquin Valley	40	25
Tuolumne	Tuolumne County	21	-3
Ventura	Ventura County	29	5
Yolo	Yolo-Solano	11	-8
Yuba*	Feather River	No data	No data

*Counties do not contain monitoring stations for ozone.

APPENDIX F – EXCEEDANCES: PM2.5

This table shows the average percent of days in each county exceeding the 24-hour PM2.5 standard in the reporting periods of 2000-2002 and 2011-2013 for comparison. Data may not be complete for some Air Districts, and all data should be treated as preliminary and subject to change when validated. In addition, some Air Districts may have changed the number of stations or frequency of monitoring between the reporting periods. Please refer to your local Air District for more specific information.

County	Air District	Percent of Days Exceeding the 24-hour PM2.5 NAAQS (35 µg/m^3)	
		2000-2002	2011-2013
Alameda	Bay Area	7	1
Alpine*	Great Basin	No data	No data
Amador*	Amador	No data	No data
Butte	Butte County	11	5
Calaveras	Calaveras County	1	0
Colusa	Colusa County	1	0
Contra Costa	Bay Area	8	0
Del Norte*	North Coast Unified	0	0
El Dorado*	El Dorado County	No data	No data
Fresno	San Joaquin Valley	20	11
Glenn*	Glenn County	No data	No data
Humboldt	North Coast Unified	0	0
Imperial	Imperial County	5	2
Inyo	Great Basin	4	2
Kern	San Joaquin	17	10
Kern	Eastern Kern	**0**	**1**
Kings	San Joaquin Valley	20	9
Lake	Lake County	1	0
Lassen*	Lassen	No data	No data
Los Angeles	Antelope Valley	0	1
Los Angeles	South Coast	21	2
Madera**	San Joaquin Valley	No data	6
Marin*	Bay Area	No data	0
Mariposa*	Mariposa	No data	No data
Mendocino	Mendocino	2	0
Merced	San Joaquin Valley	14	5
Modoc**	Modoc	2	No data
Mono*	Great Basin	2	No data
Monterey	Monterey Bay Unified	0	0
Napa*	Bay Area	No data	0

EXCEEDANCES: PM2.5

County	Air District	Percent of Days Exceeding the 24-hour PM2.5 NAAQS (35 µg/m³)	
		2000-2002	2011-2013
Nevada	Northern Sierra	0	0
Orange	South Coast	12	1
Placer	Placer County	4	1
Plumas	Northern Sierra	5	5
Riverside	Mojave Desert	1	0
Riverside	South Coast	28	3
Sacramento	Sacramento	6	3
San Benito*	Monterey Bay Unified	0	0
San Bernardino	Mojave Desert	0	0
San Bernardino	South Coast	25	2
San Diego	San Diego County	7	1
San Francisco	Bay Area	7	0
San Joaquin	San Joaquin Valley	9	3
San Luis Obispo	San Luis Obispo County	3	0
San Mateo	Bay Area	4	0
Santa Barbara	Santa Barbara County	0	0
Santa Clara	Bay Area	9	1
Santa Cruz	Monterey Bay Unified	0	0
Shasta	Shasta County	3	0
Sierra*	Northern Sierra	No data	No data
Siskiyou	Siskiyou County	0	1
Solano	Bay Area	7	1
Sonoma	Bay Area	6	0
Sonoma***	Northern Sonoma	0	0
Stanislaus	San Joaquin Valley	12	8
Sutter	Feather River	3	1
Tehama**	Tehama County	No data	0
Trinity*	North Coast Unified	No data	No data
Tulare	San Joaquin Valley	19	9
Tuolumne*	Tuolumne County	No data	No data
Ventura	Ventura County	4	0
Yolo	Yolo-Solano	3	1
Yuba*	Feather River	No data	No data

*Counties do not contain monitoring stations for PM2.5.

**Station was installed in 2009, data submission beginning in 2010.

***Based on PM10 data, 1 in 6 day sampling.

APPENDIX G – PARTICULATE MATTER AIR QUALITY TRENDS

This table shows the percent above or below what the county is for the PM2.5 National Ambient Air Quality Standards (NAAQS) over the averaging periods of 2000-2002, and 2011-2013 for comparison. A positive value means the county is above, or exceeds, the NAAQS, and a negative number means the county is below, or in attainment of the NAAQS. The data in this table illustrates the changes that have occurred over a reporting period. For example, Alameda County demonstrates an improvement in air quality since it was at about 40% over the NAAQS during the 2000-2002 period, but is now on average -23% below the NAAQS.

Data may not be complete for some Air Districts, and all data should be treated as preliminary and subject to change when validated. In addition, some Air Districts may have changed the number of stations or frequency of monitoring between the 2000-2002 and 2011-2013 averaging periods. Please refer to your local Air District for more specific information.

County	Air District	Percent Above/Below the PM2.5 NAAQS (35 µg/m³)	
		2000-2002	2011-2013
Alameda	Bay Area	40	-23
Alpine*	Great Basin	No data	No data
Amador*	Amador	No data	No data
Butte	Butte County	71	-3
Calaveras	Calaveras County	-26	-46
Colusa	Colusa County	6	-31
Contra Costa	Bay Area	37	-37
Del Norte*	North Coast Unified	No data	No data
El Dorado	El Dorado County	-34	-100
Fresno	San Joaquin Valley	129	69
Glenn*	Glenn County	No data	No data
Humboldt	North Coast Unified	-31	-43
Imperial	Imperial County	43	11
Inyo	Great Basin	46	31
Kern	Eastern Kern	-34	-17
Kern	San Joaquin	157	85
Kings	San Joaquin Valley	100	72
Lake	Lake County	-37	-60
Lassen*	Lassen	No data	No data
Los Angeles	Antelope Valley	-34	-23
Los Angeles	South Coast	97	-12
Madera**	San Joaquin Valley	No data	50
Marin	Bay Area	-100	-31
Mariposa*	Mariposa	No data	No data

PARTICULATE MATTER AIR QUALITY TRENDS

County	Air District	Percent Above/Below the PM2.5 NAAQS (35 µg/m³)	
		2000-2002	2011-2013
Mendocino	Mendocino	-20	-100
Merced	San Joaquin Valley	57	23
Modoc**	Modoc	-26	No data
Mono*	Great Basin	No data	No data
Monterey	Monterey Bay Unified	-37	-60
Napa*	Bay Area	No data	No data
Nevada	Northern Sierra	-29	-40
Orange	South Coast	65	-28
Placer	Placer County	26	-46
Plumas	Northern Sierra	20	6
Riverside	Mojave Desert	-17	-54
Riverside	South Coast	107	5
Sacramento	Sacramento	71	3
San Benito*	Monterey Bay Unified	No data	-57
San Bernardino	Mojave Desert	-26	-24
San Bernardino	South Coast	94	-11
San Diego	San Diego County	19	-33
San Francisco	Bay Area	37	-29
San Joaquin	San Joaquin Valley	54	28
San Luis Obispo	San Luis Obispo County	11	-14
San Mateo	Bay Area	20	-29
Santa Barbara	Santa Barbara County	-40	-49
Santa Clara	Bay Area	80	-14
Santa Cruz	Monterey Bay Unified	-31	-63
Shasta	Shasta County	0	-51
Sierra*	Northern Sierra	No data	No data
Siskiyou**	Siskiyou County	No data	-26
Solano	Bay Area/Yolo-Solano	49	-14
Sonoma	Bay Area	14	-37
Sonoma***	Northern Sonoma	-24	-20
Stanislaus	San Joaquin Valley	100	50
Sutter	Feather River	20	-17
Tehama**	Tehama County	No data	-29
Trinity*	North Coast Unified	No data	No data
Tulare	San Joaquin Valley	157	58
Tuolumne*	Tuolumne County	No data	No data
Ventura	Ventura County	11	-43
Yolo	Yolo-Solano	0	-40
Yuba*	Feather River	No data	No data

*Counties do not contain monitoring stations for PM2.5.

**Station was installed in 2009, data submission beginning in 2010.

***Based on PM10 data, 1 in 6 day sampling.